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ABSTRACT

The Collaborative Education Project's goal was to assess the effectiveness of collaborative problem solving (CPS) by peer advocates for enhancing the integration of students with severe disabilities into regular early education contexts. The CPS strategy gives some responsibility to nondisabled students for the planning and design of activities and procedures that will ensure greater participation by the students with severe disabilities. At the conclusion of Year 3, a total of 41 instructional staff, 12 students with severe disabilities, 320 students without disabilities, and 8 parents had been taught the CPS process, or had received the benefit of this training. Data collected from the first 3 years of the project indicate that: (1) parent attitudes toward mainstreaming are unaffected by the presence of students with severe disabilities; (2) CPS is a useful and valued process for promoting equity and the inclusion of students with diverse needs in general education classrooms; (3) achievement test performance among classmates of students with severe disabilities was equivalent or better than a comparison group; and (4) level of engaged time among typical students was unaffected by the presence of students with severe disabilities. Attached to the report are an instructor's manual for the CPS approach; a CPS manual written by elementary students for other students; and papers with the following titles and authors: "The Effects of Full Inclusion on Regular Education Teachers" (Beverly Rainforth); "Parents as Team Members: Inclusive Teams, Collaborative Outcomes" (Christine Salisbury); "Mainstreaming during the Early Childhood Years" (Christine L. Salisbury); "Peer Interactions and Social Acceptance of Elementary-Age Children with Severe Disabilities in an Inclusive School" (Ian M. Evans and others); "Use of Instructional Time in Classrooms Serving Students with and without Severe Disabilities" (Tia M. Hollowood and others); and "On the Nature and Change of an Inclusive Elementary School" (Christine L. Salisbury and others). (Contains 40 references.) (JDD)

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FINAL REPORT

HD 84.086D 90006

Using a Collaborative Problem Solving Strategy to Facilitate the Mainstreaming of Students with Severe Handicaps

(The Collaborative Education Project)

Funded by the U.S. Department of Education, Office of
Special Education and Rehabilitation Services
under the

Program for Severely Handicapped Children:
Innovations for Meeting Special Problems of Children
with Severe Handicaps in the Context of
Regular Education Settings

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Ian M. Evans, Ph.D., Co-Director

March, 1993

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II. ABSTRACT

Despite physical and social integration within regular education classrooms and inservice instruction on curriculum adaptations, young students with severe handicaps in the Johnson City Central School District were being instructed in parallel, rather than integrated, fashion during the 1987-89 school years. The problem of how to achieve a greater degree of meaningful inclusion in regular education classrooms thus became the focus of this project. Drawing upon the strengths of the district's staff in using cooperative learning techniques, we designed a collaborative problem solving (CPS) strategy that would serve as the primary intervention during the second year of the project. Essentially, this strategy gives some responsibility to nonhandicapped students for the planning and design of activities and procedures that will ensure greater participation by the students with severe disabilities. The students, their teachers, and interested parents were taught the process of problem solving, as well as the criteria (principles) by which any solution must be judged. The process naturally promotes attention to issues of inclusion, equity, and social responsibility for those less able to advocate for themselves.

The goal of the Collaborative Education Project is to assess the effectiveness of collaborative problem solving by peer advocates for enhancing the integration of students with severe handicaps in regular education contexts. This goal was supported by five major objectives:

1.0 Train district personnel
2.0 Conduct baseline assessments of regular education classrooms
3.0 Implement CPS process with teachers, parents, and peers
4.0 Replicate intervention procedures
5.0 Disseminate findings to professionals and parents

During the first year of funding, baseline data were collected on a variety of school, classroom, student, and parent variables using qualitative and quantitative measurement strategies. These data were disseminated at national conferences and in two journal publications. Teachers worked during the summer with project staff to refine the Collaborative Problem Solving process and the criteria for judging its success. The outcome of that effort was a draft version of the Instructor's manual for Collaborative Problem Solving.

During the 1990-91 school year (Year 2), two critical activities occurred. First, teachers, parents, and peers were taught the collaborative problem solving strategy (CPS). This strategy was implemented in 8 classrooms, grades K-2, and involved 23 professional and paraprofessional staff, 10 students with severe disabilities and their mothers, and 200 students without disabilities. Second, data gathered during Year 1 on classroom ecology were disseminated to professionals and parents

of children with and without disabilities through conference presentations and workshops provided to local education agencies at several locations around the country. During the summer of Year 2, additional revisions were made in the Instructor's manual in collaboration with professional staff from the school.

During the final year of funding, the CPS process was taught to an additional 18 general education staff in 4 additional classrooms (grades 1-4), enabling us to replicate and assess its utility with individuals who had not previously served students with severe disabilities. Although not originally proposed, a second major product was created under the auspices of the this project. Elementary students wrote and illustrated a manual about Collaborative Problem Solving for other students to use. This manual, and the companion Instructor's guide, were sent at no charge to all projects funded through the Severely Handicapped Branch.

At the conclusion of Year 3, a total of 41 instructional staff, 12 students with severe disabilities, 320 students without disabilities, and 8 parents had been taught the CPS process, or received the benefit of this training. In addition, hundreds of professionals attending local, state, and national conferences were provided information and/or training on collaboration, teaming, instructional inclusion, and/or collaborative problem solving. This project has made important contributions to the field's understanding about inclusion and inclusive schooling practices, and to the quality of direct services for students with severe disabilities.

Data from this project indicate that (1) parent attitudes toward mainstreaming are unaffected by the presence of students with severe disabilities; (2) collaborative problem solving is a useful and valued process for promoting equity and the inclusion of students with diverse needs in general education classrooms; (3) collaboration among students, staff, and parents at the building and classroom level affect the degree to which students with severe disabilities are socially and instructionally included in classroom and non-classroom events; (4) achievement test performance among those who were classmates of students with severe disabilities was equivalent or better than a comparison group; (5) level of engaged time among typical students was unaffected by the presence of students with severe disabilities; and (6) social acceptance and opportunity for interaction were not uniquely associated with a child's level of functioning.

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IV. GOALS AND OBJECTIVES

GOAL: To assess the effectiveness of collaborative problem solving by peer advocates for enhancing the integration of students with severe handicaps in regular education contexts.

Objective/Activity	Person(s) Responsible
1.0 Train District Personnel	
1.1 Hire staff	Salisbury/Evans
1.2 Meet with teachers/parents	Project Staff
1.3 Inservice staff on "best practices"	Coordinator
2.0 Baseline Assessment of Regular Education Classrooms	
2.1 Modify or develop measures	Evans/Salisbury
2.2 Conduct observations and ratings	Coordinator/GA
2.3 Assess parent attitudes/ contacts	Coordinator/ Salisbury/Evans
3.0 Implement Interventions	
3.1 Collect child and teacher data	Coordinator/GA
3.2 Teach CPS to teachers	Coordinator/Salisbury
3.2.1 Monitor Implementation	Coordinator
3.2.2 Provide Feedback	Coordinator
3.3 Teach CPS to parents	Coordinator/ Salisbury/Evans

Objective/Activity	Person(s) Responsible
3.3.1 Monitor Collaborations	Coordinator
3.3.2 Provide Feedback/ Assist	Coordinator/Salisbury Evans
3.4 Teach CPS to Peers	Teachers/Coordinator
3.4.1 Monitor Implementation	Coordinator
3.4.2 Provide Feedback/ Assist	Teachers/Coordinator
3.5 Analyze Data	Salisbury/Evans
4.0 Replicate Activities	
4.1 Refine Strategy and process	Coordinator/Salisbury Evans
4.2 Replicate with teachers, peers and parents	Project Staff
4.2.1 Monitor Implementation	Coordinator/JC staff
4.2.2 Provide Feedback	Coordinator/JC staff
4.3 Collect Data	Coordinator/GA
5.0 Disseminate Findings	
5.1 Prepare and Submit Manuscripts	Salisbury/Evans
5.2 Conference dissemination	Salisbury/Evans/ Coordinator
5.3 Develop CPS Guide	Coordinator/Salisbury Evans

V. CONCEPTUAL FRAMEWORK

Context for the Project

There is growing recognition in the field that the final educational milestone in the integration of children with severe handicaps is the provision of education in regular classrooms (Biklen, 1985; Stainback & Stainback, 1984; TASH, 1986). Sometimes known as the regular education initiative (Will, 1986), mainstreaming options have emerged in recent years as a central and achievable goal for school programs (Giangreco & Meyer, 1988). At this juncture, scholars in special education continue to voice disagreements over the extent to which "total integration" can or should be a reasonable objective for students with severe disabilities (Snell, 1988). Concerns center around how to preserve the quality and intensity of instruction provided to our students when they are in a regular education classroom. However, there seems to be little disagreement that regular class placement represents the least restrictive educational placement for students with severe handicaps (Taylor, 1988).

It is perhaps ironic that this new initiative towards regular class placements should come at a time when even physical and social integration of learners with severe disabilities has not been fully achieved. In our own state of New York, for instance, totally segregated educational services are commonplace, even the norm (Danielson & Bellamy, 1988). As a result, many discussions of integration into regular education still, quite rightly, focus on administrative and logistical strategies to ensure the desegregation of students with severe disabilities (e.g., Taylor, Biklen, & Knoll, 1987). While much work needs to be done, there is, in fact, an extensive body of literature supporting general integration. There is little documentation, however, of the mainstreaming of students with severe handicaps. This would appear to be a serious professional shortcoming for integration, if regular class placement does indeed represent its logical endpoint. The present proposal addressed the need for additional empirical evidence concerning strategies to enhance the degree of integration experienced by students with severe disabilities who are served in regular education classrooms.

Despite the wide range of educational service models still found in a state such as New York, there do exist some school districts who have made a concerted effort to translate the regular education initiative into reality. Prior to the inception of this project, the Project Director had spent several years working in cooperation with the Johnson City Central School District to provide effective mainstreaming for young students with severe handicaps. Thus, philosophical arguments about the legal, ethical, educational, and social advantages of integration were unnecessary, as were general strategies to modify school practices and policies. We, in essence, were able to enter the dialogue and examination of integration at a point that many projects set as their goal.

In the two years prior to funding, the Johnson City district had been serving students with severe handicaps in regular class placements. In developing these programs, however, we found there to be a dearth of systematic, empirically-based information regarding the actual instructional processes involved in mainstreaming students with severe handicaps. Our own observations revealed that the most significant barrier to successful integration experiences was the development of an effective social ecology in the classroom.

Specifically, what we repeatedly encountered was that although the children with severe handicaps were physically present in the regular classroom, their instruction took place in parallel with the teaching of their nonhandicapped peers; this despite inservice training to teaching staff on strategies to enhance the integration of students with severe handicaps.

This problem appeared to reflect the limitations of current knowledge and practice in the field of special education as it pertained to the integration of students with severe handicaps. There is a considerable body of work on social integration (see Meyer & Putnam, 1988), and we know a considerable amount about the emergence of peer relationships, friendships, and social skill development. The degree to which teacher intrusion influences social interaction has been investigated (Cole, Meyer, Vandercook, & McQuarter, 1986), and the specific behavioral interactions between preschool children with severe handicaps and their nonhandicapped peers have also been extensively studied (Strain, Guralnick, & Walker, 1986).

There is also a certain amount known about the development of curricula for students with severe disabilities in the context of regular education (e.g., Ford, Schnorr, Meyer, Davern, Black, & Dempsey, in press). Curriculum guides include strategies for ensuring academic instruction is functional, and conversely, for adapting the regular education curricula to ensure meaningful participation by students with severe handicaps. There have also been suggestions made regarding instructional strategies, such as cooperative learning (Johnson & Johnson, 1989; Slavin, 1983) or Wang's adaptive learning environments model (e.g., Wang & Birch, 1984). However, there is little or no empirical work specifying how these strategies are to be fitted into the regular working day by the teachers, or adapted for integrating students with severe, rather than mild, disabilities.

These pedagogical developments were seen as necessary but not sufficient conditions for ensuring that the students with severe disabilities were provided an effective educational program within a full-time, regular class placement. In our experience, the specific problem remained unresolved- there was little information on strategies to influence the overall social ecology of the classroom to enable the students with severe handicaps to actively participate in the learning process: in teacher interactions, peer interactions, and environmental interactions. Despite a great deal of enthusiasm for the concept of mainstreaming students with severe handicaps, there was an insufficient technical base to guarantee true integration.

Proposed Solution

Our proposed solution to this problem was to develop and evaluate a process we called "collaborative problem solving" (CPS). The major innovation of this proposal was the design and evaluation of a process (CPS) for including nonhandicapped peers in the solving of practical problems presented by the full participation of students with severe handicaps in classroom activities. We proposed that peers would, on occasion, be asked to serve as advocates for their classmates with severe handicaps and, on other occasions, to join their typical peers in resolving a problem of inclusion or participation as a group. The principles underlying the process reflected a philosophy and belief system that:

(1) values each student in the class for their unique contributions,
(2) recognizes that a continuum of abilities exists in any class, and
(3) social responsibility involves advocating for those who cannot effectively advocate for themselves.

Specifically, we proposed to teach regular and special education staff a general collaborative problem solving strategy which they, in turn, would be encouraged to use in their interactions with nonhandicapped students in grades K-2. Thus, when a teacher needed to organize an activity or an instructional procedure so that it included all the children in the class, he/she would seek the active participation of some or all of the students in the problem solving process to help achieve this end. In order to achieve the inclusion of all students, the teacher needed to specify the principles of integration, encourage perspective-taking (empathy), teach the specifics of solving complex problems, negotiation, and conflict resolution, as well as encourage students to creatively deal with physical, conceptual, and social barriers. We anticipated that this process would result in pupil-generated solutions that would modify the social ecology of the classroom and enhance the degree of integration experienced by students with severe handicaps.

We also proposed that Collaborative Problem Solving would be extended to the adult school personnel and to parents; however, these efforts were designed to support the implementation of the problem solving by peer advocates, and were not the major focus of the proposal.

Rationale for Collaborative Problem Solving Intervention

The concept that individuals can work together to solve a mutual problem is a very old one. It is widely recognized that the solutions generated from "the bottom up" are likely to be implemented more reliably and work more constructively than solutions imposed from above (Heppner, 1978; Spivack & Shure, 1974). To be effective, however, group problem solving or decision making must adhere to two broad criteria. First, there must be process rules that guide the activity and make sure that the group is not overly controlled or influenced by a few members. Second, there must be an agreed upon philosophy or set of principles that can be referred to or used by the group to derive solutions. This philosophy can be required as a pre-condition for participating in the group. For example, a requirement might be that in the solution everyone must have a meaningful role. A proposed solution not containing such a provision and excluding someone would then have to be rejected by the group.

Taking part in groups of this kind is thought to teach the participants both sets of standards - how to work within a group structure to achieve a common purpose (a type of social skill), and the guiding principles that must be adhered to. In addition, of course, the group generates solutions that are likely to be adopted, implemented, or adhered to by the majority of the participants. The ability of young, elementary age students to learn principles and engage in moral reasoning has been investigated and found to be a realistic expectation (Turiel, 1987).

There are good reasons for thinking that collaborative problem solving represents a valuable format for promoting some of the activities of a fully integrated classroom.

(a) First, since the plans are developed by the group they are most likely to be accepted by the group. If activities are imposed on the students by the teacher there is likely to be compliance by some, but also a certain degree of resistance by others. Direct teacher attempts to get nonhandicapped students to engage in an activity with a peer with severe handicaps could thus result in opposition and resentment (Cole, 1986; Staub, 1970).

(b) The disability of the student with the severe handicap can be presented as a fact of life, rather than something to be denied or pitied. Once the group acknowledges the principle, for instance, that a field trip must include everyone, then John's wheelchair is a simple issue to be dealt with, along with who will bring the chips and what will happen if it rains. No one is doing special favors for John by inviting him along.

(c) By the same reasoning, empathy is learned directly, in the simple sense that one must understand the situation from the other person's point of view in order to solve the problem (Eisenberg, 1982). If the objective of the problem solution is for everyone to have fun, then it will be necessary to anticipate whether Mary, who is severely cognitively disabled, will actually be able to enjoy the activity. Learning concern for others is one of the desired "exit behaviors" of the district's educational program. Being able to put oneself in another person's shoes, developing what Turnbull and Turnbull (1986) refer to as "empathetic reciprocity", seems to be an essential prerequisite to this social skill.

(d) Another exit goal of the district's educational program is the ability to solve problems. The collaborative approach requires formalization of the problem solving strategy and a systematic effort to include it in the regular education curriculum. Developing in students the ability to generate not only solutions, but to understand the process and the rationale employed in arriving at those solutions, will help develop critical thinking in regular education students and a greater degree of integration for their classmates with severe handicaps.

(e) It is quite probable that the solutions generated by the students themselves will be more creative, more fair and egalitarian, and more motivating than many that we and the teachers could create. Thus, the strategies themselves are likely to have high ecological and social validity and be very child-centered. These characteristics have been described in the literature as necessary, though not sufficient, indices of valid interventions (Voeltz & Evans, 1983).

(f) Collaborative problem solving involves some of the underlying premises of cooperative learning (Johnson & Johnson, 1987). While cooperative learning provides for enhanced social benefits for its participants

(Slavin, 1983) collaborative problem solving appears to offer a wider variety of options in that the group could opt for an infinite range of solutions, some of which might not directly involve the student with severe handicaps.

(g) The approach does not presume that there is one ideal structure for all classrooms to insure that full integration is achieved. Rather, it assumes that the necessary requirements are a process, one step removed from the actual activities that promote integration. Thus, it should be possible to generalize this model to other schools and classrooms, rather than trying to replicate exact programs that vary across children, teachers, or school districts.

(h) Finally, collaborative problem solving in a sense empowers the nonhandicapped peers themselves, giving them responsibility and the opportunity to exercise some control over factors that directly affect the quality of their educational experience, an outcome valued in the field of regular education (Johnson & Johnson, 1985, 1987).

VI. DESCRIPTION OF STUDIES, METHODS, PARTICIPANTS

Design of the Project

This project was not comprised of a series of experimental investigations, nor was it a demonstration of a model program. Rather, we carried out (1) a longitudinal examination of the ecology of an inclusive school, and (2) investigated the effects of a single intervention (Collaborative Problem Solving) on the inclusion of students with severe handicaps in general education classrooms. The overall design of the project is briefly reviewed below:

Year 1. The first year of the project served two functions. During the first half (Fall), we hired and trained staff, refined data collection tools, and concentrated on gathering observational and qualitative data in the classrooms.

During the second half (Spring), we provided training and consultation to ensure that the teachers (both regular and special education) and therapists evidenced minimal levels of competency in areas identified by the district as part of their mastery learning model and special education initiatives (e.g., adaptations of regular education curriculum (Ford & Davern, 1989; Meyer, 1989); data based instructional decisions (Doyle, Wolery, Ault, & Gast, 1988).

Year 2. During the Fall of Year 2 we taught general and special education staff serving grades K-2 the collaborative problem solving (CPS) process. In general, the intervention involved teaching staff (1) the rationale for the process, (2) components of the problem solving process, (3) strategies for working individually and in groups to teach the process to students, and (4) techniques for embedding the process into naturally occurring interactions with students. The Instructor's Manual (see Appendix) details the CPS process and provides examples drawn from the classrooms in this school.

It was our assumption that the process and cognitive skills implicit in the above procedure were consistent with goals that these teachers had for their regular education students already (cf., ODDM). What we offered them was a reason to teach the process to their students, technical assistance on how to embed it in their normally occurring class schedules and content subjects, and a process that was philosophically consistent with ODDM and the integration literature in special education. We reasoned that this "match" would help sustain the CPS process after termination of the project funding, and maximize the likelihood that staff would adopt and value it as an intervention strategy.

Instructional staff were asked to implement the CPS process and strategies in Year 2 after training. We were, then, able to create a general indoctrination to the CPS strategy for the class as a whole, and for individuals in key instructional roles. Teachers and/or students were responsible for identifying problems, initiating the process of solution finding, and evaluating the results of their efforts. Parents were included in intervention training in Year 2 in recognition of the influence they have on the attitudes of children without disabilities that may subsequently affect interactions with and inclusion of classmates with severe disabilities.

Year 3. In the third year, the procedures and strategies developed in Year 2 were refined and replicated with teachers and classmates at the next grade level where target students were enrolled (grades K-3). Strategies found to be effective in maximizing the physical, social, and instructional inclusion of students with severe disabilities and their parents were shared with staff, along with research reports and project presentation materials. Building administrators were included in summer CPS process planning and discussions as a vehicle for ensuring the continuation of support for inclusion following termination of the grant.

Dependent Measures and Data Collection Schedule

The original proposal indicated that a variety of dependent measures would be used to collect information on contextual/pedagogical and student variables to determine their influence on the inclusion of students with severe disabilities. We used a combination of interview, direct observation, participant observation, and survey methodologies to study the context, inclusion, and the collaborative problem solving intervention over the three year funding period. Our dependent measures, the frequency with which they were used, and reliability figures (where appropriate) are summarized below. As we got into the process of instrument development and data collection there were adjustments to be made (reported in continuation proposals). These modifications are briefly noted below. In addition, reference is made to Section VIII, where results of these data collection efforts can be found.

Contextual/pedagogical. Three measures were used to determine the characteristics and changing nature of the school and classroom context:

(1) School characteristics: Qualitative fieldnotes, semi-structured interviews, and product analyses were undertaken over a 30 month period by three observers in 12 classrooms representing grades K-4 to capture the nature and change of this inclusive elementary school. Data collection was intended to illuminate implementation issues and strategies in this

particular elementary school. Instructional and social issues related to the inclusion of approximately 12 students with severe disabilities each year were recorded and analyzed. Results were disseminated at three national conferences and through a manuscript that has been accepted for publication in the Journal of the Association for Persons with Severe Handicaps (see Appendix).

(2) Parent attitudes about integration - The attitudes of parents of typical students in grades K-2 were surveyed in Years 1 and 2 to assess the degree of support for inclusion. Parents at Harry L. where students with severe handicaps were enrolled were contrasted with parents at Lincoln Elementary, where students with mild/moderate disabilities were integrated in general education classrooms. Green and Stoneman's (1989) "Parent Attitudes toward Preschool Mainstreaming" instrument was adapted for use at the elementary level. Results were analyzed and presented at national conferences and submitted as a manuscript to the Journal of the Association for Persons with Severe Handicaps. We received a negative response (and to our mind a biased editorial decision) on this manuscript, and are currently re-running the analysis with the intent of re-submitting for a second time.

(3) Classroom instructional practices - We developed an instrument referred to as the "Classroom Ecology Scale" to assess how general education teachers interacted with students with severe disabilities in their classrooms during large, small, and tutorial group situations. This scale replaced ESCAPE, which was originally planned as the tool of choice. ESCAPE proved to be too labor intensive and impractical. The Classroom Ecology Scale was intended to index the extent to which teachers included or excluded target students with severe disabilities. Classrooms were observed for 60 minutes per month for 8 months each school year using a time-sampling procedure. Direct observation in 6 ten minute samples was made of the context, rather than child behavior. Inter-rater reliability was calculated to be in excess of 90% each year. As we worked with the analysis of the data from this instrument we found that only selected questions, rather than the entire scale, were useful in depicting what was actually transpiring in these classrooms. These selected items are reported on the charts in Section VIII.

(4) Videotaping: Interactions among students and teachers and students documented on videotape for training, data analysis, and dissemination purposes during Year 1. We used videotape, with limited success, to document collaborative problem solving sessions among teachers and students.

Student measures. Several measures were collected over the three year period to assess changes in level of performance and behavioral patterns of development among students with and without disabilities.

(1) General development : California Achievement Test data were obtained from the district on each student in at Lincoln and Harry L. for each year Target students were tested by classroom teachers using a variety of criterion referenced tools (predominantly the Brigance). The unevenness of the teacher assessment practices made it impossible for us to reliably assess student progress over time. CAT data were used to compare the achievement of students without disabilities in classrooms with and without severe disabilities. Data for typical students who had been classmates with a target student for three or more years are contrasted with a cohort of students who had not been in classes with target students. These data are depicted in Section VIII in chart form.

(2) Self-management and leisure: After conducting intensive observations in the regular education classrooms, we opted not to use the SPAN assessment of functional competence as originally planned. We substituted the Revised Vineland Social Maturity Scale in its place, a scale we felt was conceptually comparable and provided equivalent outcome information. These data were collected each year by a graduate psychology or special education student on each target student and are reported in various journal articles as background on the students being served at Harry L. Elementary.

(3) Social competence: We used the Assessment of Social Competence as originally planned. Data were used in the recently published JASH manuscript and will also be incorporated into an additional publication which is in preparation.

(4) Social interaction: We developed a measure for objectively assessing the frequency, nature, and targets of interactive bids made by handicapped and nonhandicapped students in regular education classrooms. This measure provides information that would have been garnered with ESCAPE and which was used to supplement data from the Classroom Ecology Scale. This coding system consisted of 11 categories of social interaction. Data were collected by two master's level professionals for a total of 15 minutes per month over 8 months each year. Observations were recorded in one minute "sweeps", alternating between target and comparison children. Each 1-minute sweep was divided into four 15 second recording intervals during which we recorded social overtures made by and to the target child. Reliability of these data were computed to be 89% in the fall, 95% in the spring of Year 1. These data, along with the sociometric protocol, were reported in the recently published JASH manuscript.

(5) Self-report of friendships: A sociometric protocol and procedures were developed as planned. The measure, termed "Friends and Acquaintances" for staff, parents, and students, is based upon the work of Coie, Dodge, and Cappotelli (1982). A detailed description of this measure and our findings were reported in the recently published JASH manuscript.

Intervention measures. We originally indicated we would evaluate CPS solutions and activities weekly, and that at least five problem solving sessions per teacher would be recorded in detail. Data were, in fact, collected by a variety of methods including direct observation, videotape, tape recording, teacher's running records, and permanent products.

VII. METHODOLOGICAL AND LOGISTICAL ISSUES

Changes in dependent measures

The shifts in data collection strategies and measures were briefly described above, and in more detail in each continuation proposal. In general, we adhered to the original proposal's evaluation plan and range of dependent measures.

Measurement of collaborative problem solving

This was perhaps the most problematic aspect of this study. The staff at Harry L. Johnson Elementary School seemed to internalize the CPS process, making it difficult for us and them to anticipate when they would invoke the process and to record/recall what transpired. We suspect that this high level of implementation was due to the cooperative learning foundation upon which CPS was laid, as well as the high level of interest expressed by the staff in learning and applying the process in their classrooms.

Many events happened spontaneously and could not feasibly wait to be videotaped. Because of this, many CPS instances occurred and we were not notified in time to run down the hallway to directly observe the session. To alleviate this difficulty, we met with the staff and they agreed to use hand-held tape recorders, with the intent that these would (1) be turned on when a situation arose, or (2) that they would "de-brief" into it during free time so that we could retrieve evidence of the CPS session and its intended outcomes. These strategies met with mixed results. There was an increase in the number of instances recorded, either by staff or by us directly. In the final analysis, the observation of process change proved to be more difficult than anticipated.

Measurement issues not withstanding, we were able to record a sufficient sampling of collaborative problem solving activities through direct observations and by audio-recordings from teachers. We feel we have a sound understanding of the potential of the CPS process for enhancing the inclusion of students with severe disabilities, its outcomes, and its limitations. Our interpretation of the impact of CPS was corroborated by an independent investigation conducted under the auspices of the Collaborative Education Project by sub-contract to the California Research Institute (Dr. Beverly Rainforth, investigator). This report is included in our attachments.

In Year 3 the staff became more attuned to the evaluative component of the process and were more intentional about teaching that aspect to the typical students. The children's CPS manual (see Additions to Workscope below) was an outgrowth of meetings with teachers early in Year 3.

Modifications to timelines

We requested, and received, a no-cost extension to complete dissemination activities in the Fall, 1993 at three national conferences, one of which involved the major regular early childhood national organization. The 1991-92 continuation proposal contained a detailed rationale for timeline slippages and the steps we took to correct for this.

Contextual instability

One significant factor affecting the general findings and efforts of this project was the continual state of flux in personnel and personnel deployment in this school (see Salisbury, Palombaro, & Hollowood, in press). The principal was promoted to a central administration position in Year 3, and his replacement knew she would retire at the end of our final year of funding. Consequently, there was a strong sense of unrest in the school about who her replacement would be and how best to address short and long-term staffing and student issues. This undercurrent affected the extent to which we felt we could enlist the "extra effort" sometimes needed from staff for the project's final leg, and their motivation in "adding more things to their already full plate".

Additions to work plan

Despite the methodological issues, turmoil, and slippages noted above, we were able to produce two additional products not originally proposed in the workscope:

(1) Hollowood, T.M., Salisbury, C., Rainforth, B., & Palombaro, M.M. Uses of instructional time in classrooms serving students with and without severe disabilities. Submitted to Exceptional Children for review. This study is the only one we are aware of that is comparative in nature and addresses the issue of how the presence of students with severe disabilities affects the quality of the learning environment for classmates without disabilities. A copy of this paper is included in the Appendix.

(2) Salisbury, C. & Palombaro, M.M. (Eds.) Collaborative problem solving : Working things out our way. This companion manual was written by students for students about how CPS can be used to resolve issues of concern. The concept for this booklet emerged from discussions with two teachers and led to their involvement as sponsors for an after school CPS Club. A copy of this document is included in the Appendix.

(3) Rainforth, B. (1992). Effects of inclusion on the instructional practices of elementary general educators. Final report. California Research Institute. Investigation conducted under the auspices of the Collaborative Education Project, C. Salisbury, Project Director. This qualitative study was conducted over a nine month period and involved structured interviews, observations, and focus group sessions. These methods were used to assess how serving students with severe handicaps had impacted general educators, professionally and personally. These data are currently being prepared for publication review.

(4) Salisbury, C., Peck, C.A., Palombaro, M.M., & Galucci, C. Strategies used by general educators to promote social relationships among students with and without severe disabilities. This qualitative investigation was conducted with Dr. Charles Peck and colleagues at the University of Washington-Vancouver. Data have been gathered and the manuscript is currently being prepared for review.

VIII. FINDINGS/OUTCOMES

Major findings are depicted in figures, tables, and charts on the following pages. These data were gathered using the methods described earlier, and have been disseminated through a variety of outlets (see **IX. Project Impact**).

ECOLOGY OF AN INCLUSIVE ELEMENTARY SCHOOL

(1) Qualitative characteristics of the school
(final; data to appear in next issue of JASH)

(2) Social interactions and social acceptance
(Year 1 analyses final; data appeared in JASH, 1992, 17(4), 205-212; Year 2 and 3 data currently being analyzed, manuscript in preparation)

(3) Classroom ecology
(preliminary; data from Year 3 not included: manuscript in preparation)

(4) Attitudes of parents toward mainstreaming
(preliminary; data being re-analyzed, manuscript to be re-submitted for review)

CHARACTERISTICS OF AN INCLUSIVE ELEMENTARY SCHOOL

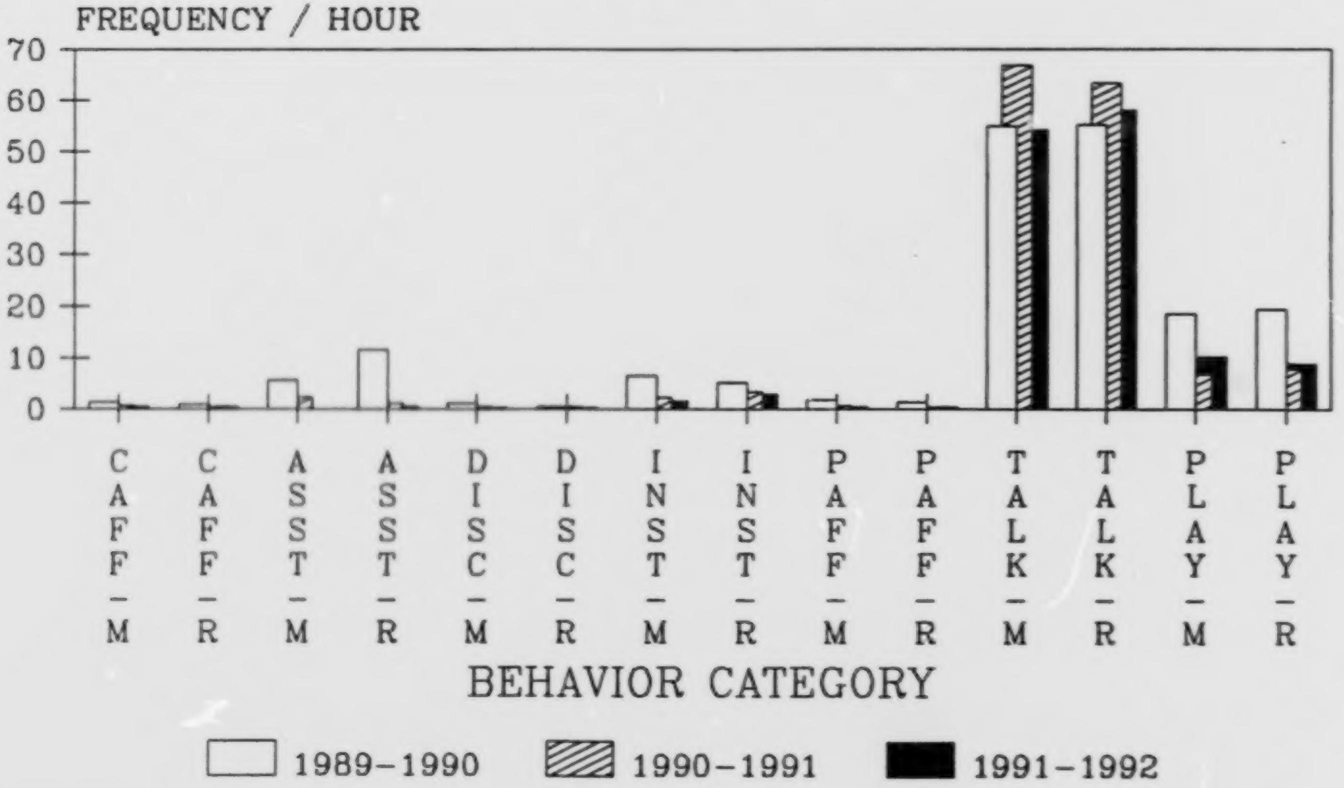
- SENSE OF MISSION, VISION
- COLLABORATIVE RELATIONSHIPS
- EMPOWERMENT
- REFLECTION AND CHANGE
- HIGHLY INTENTIONAL ENVIRONMENT
- INSTRUCTIONAL LEADERSHIP
- A SCHOOL FOR ALL KIDS

SOCIAL INTERACTIONS

- Assessed for targets and non-disabled matched peers
- Nature of interactions changes over time within and across grades
    - infantilization, physical affection, instruction, and discipline predominate at outset
    - friendships emerge mid - K and sustain over time
    - children circumvent "barriers" that stymie parents
- Teacher modeling affects quality of interactions
- Children must be taught how to interact appropriately, questions answered honestly
- Expectations, roles, responsibilities must be intentionally addressed

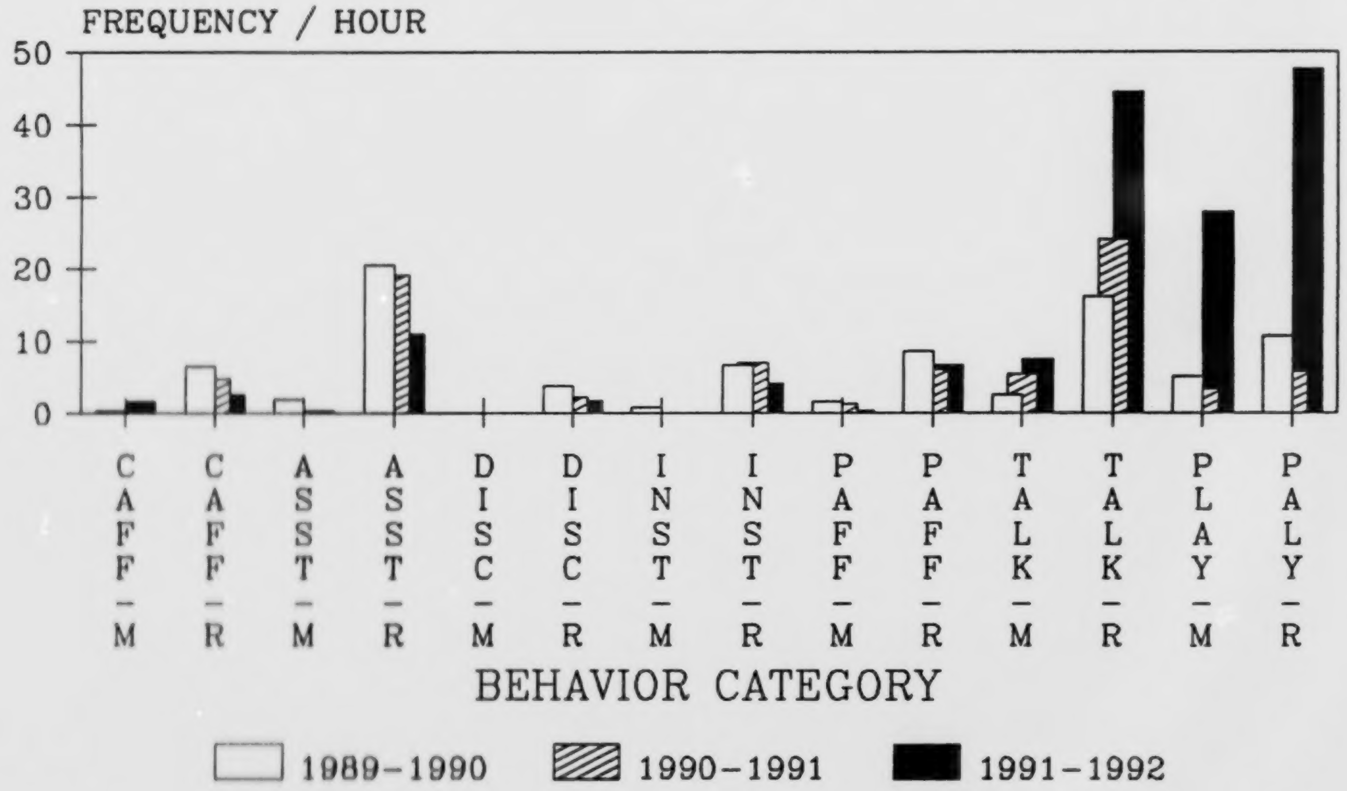
Social Interaction

Comparison Group



Social Interaction

Target Group

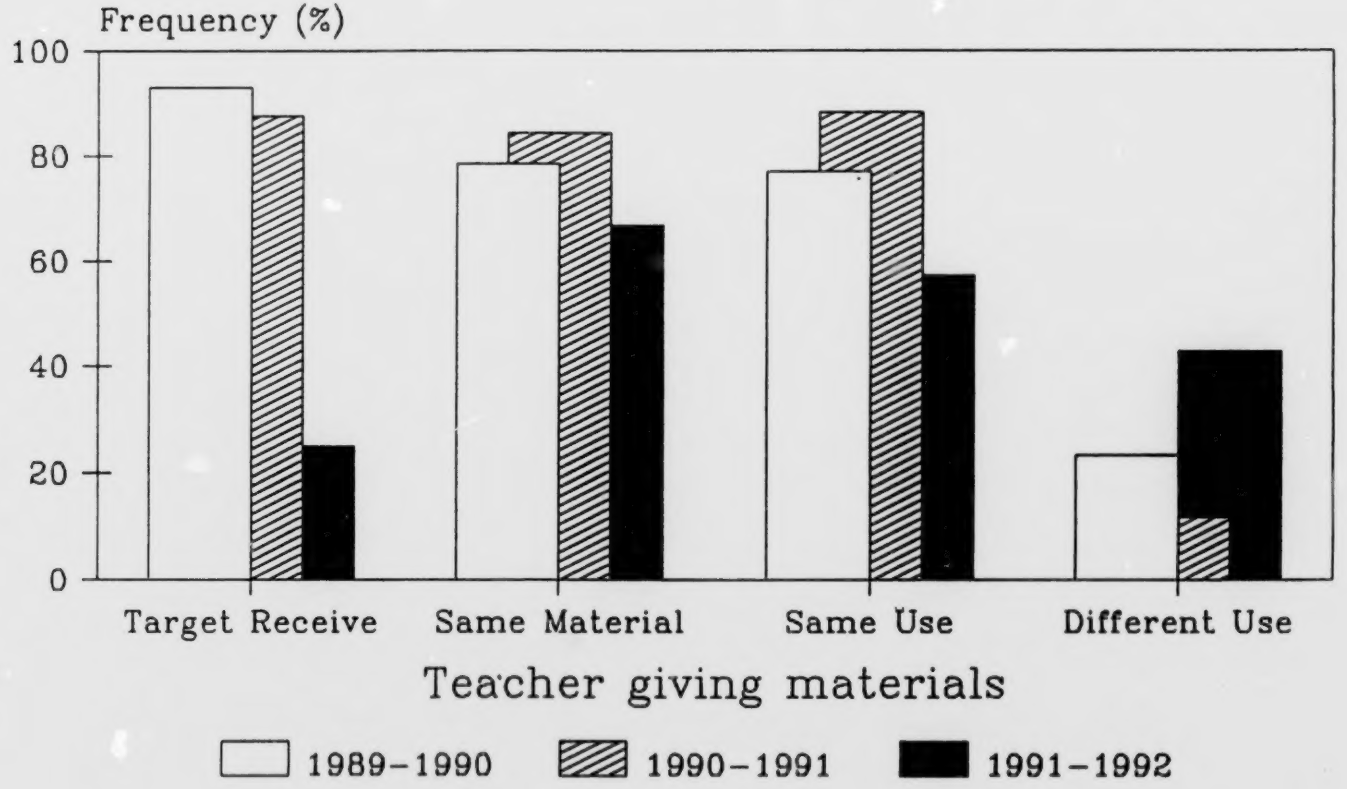


PRELIMINARY CLASSROOM ECOLOGY FINDINGS

- Teacher variability interacts with grade level demands to preclude generalizations
- Following inservice training in Year 1 on curriculum adaptation there was increased attention to ensuring that target students received same materials as peers and that accomodations were made in lessons (materials used same)
- Data will be analyzed to compare changes in teacher practices over the three year period of the project
- There is no evidence that presence of students with severe disabilities creates a significant distraction in the classroom (infusion distracting; in class noisey)

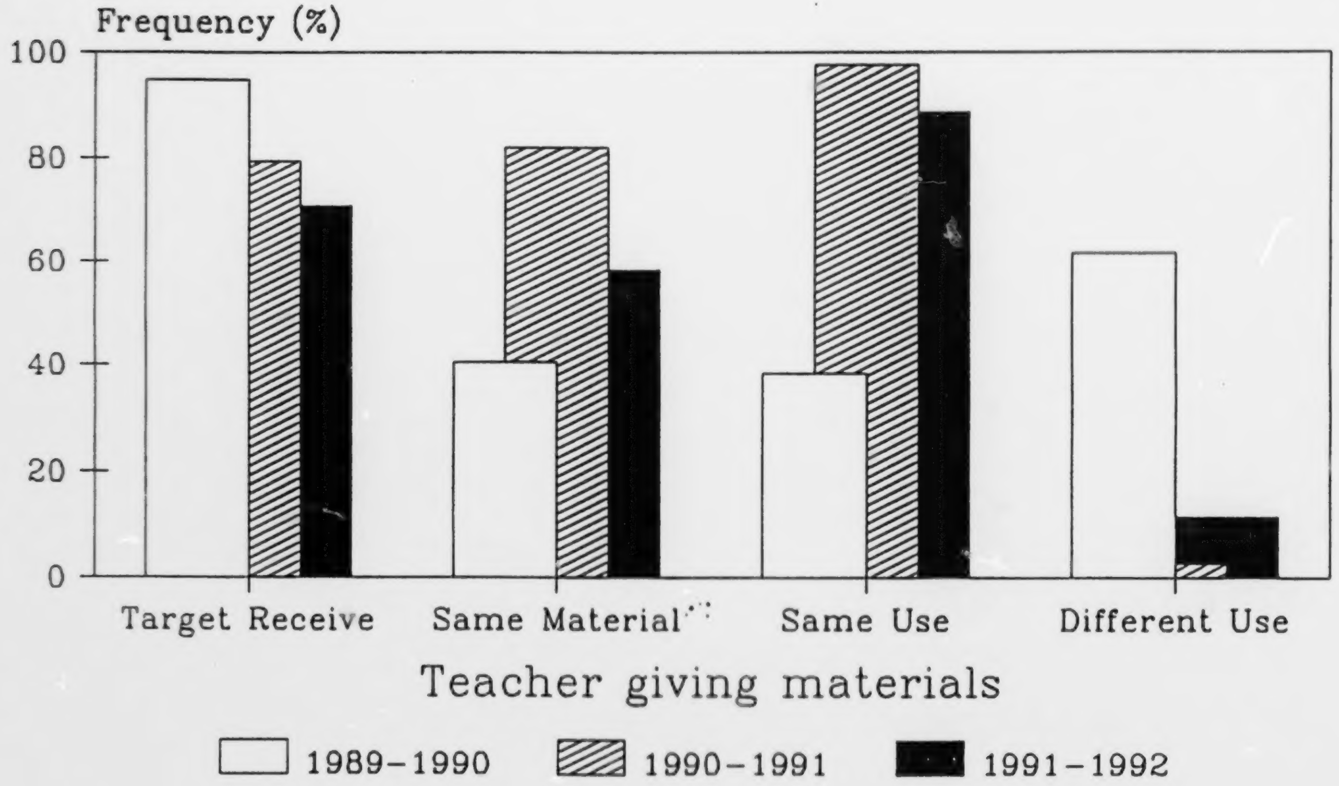
Classroom Ecology Scale

By Grade – Kindergarten



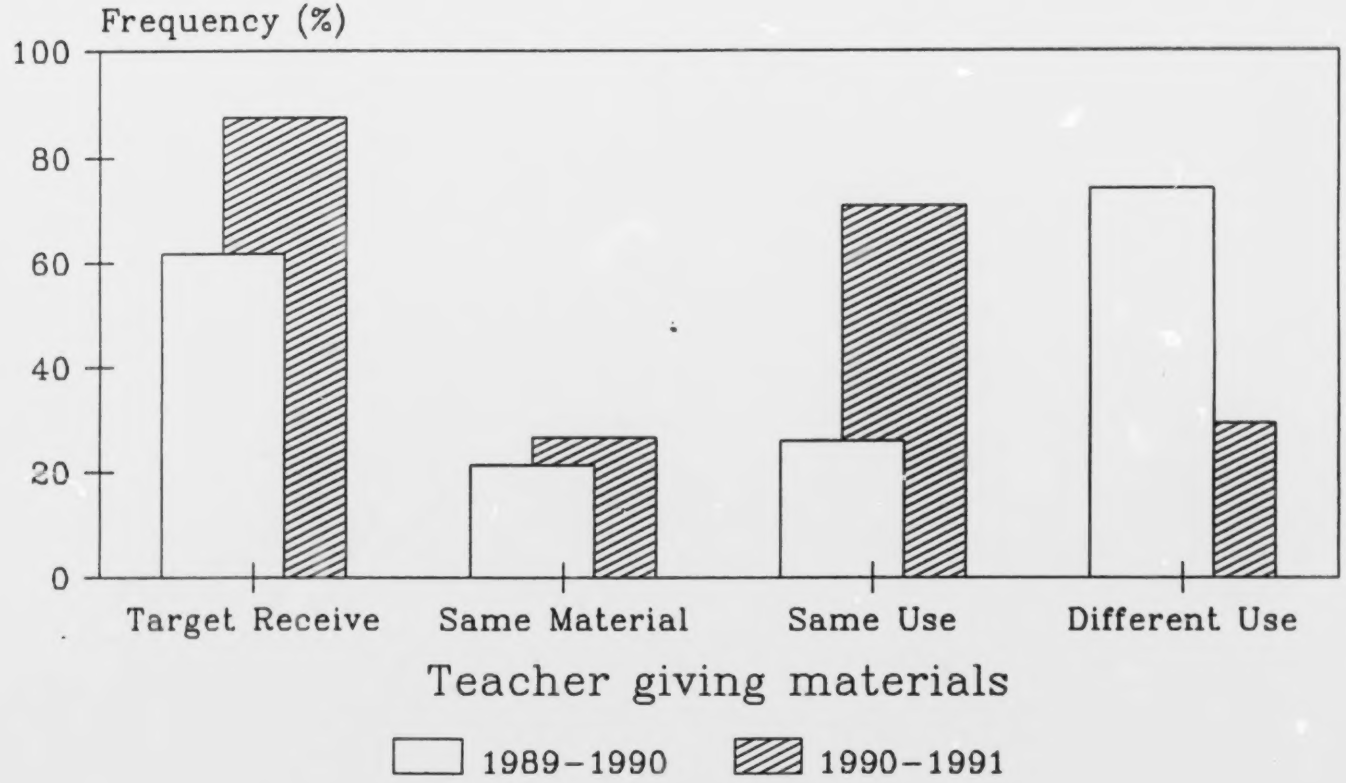
Classroom Ecology Scale

By Grade - First Grade



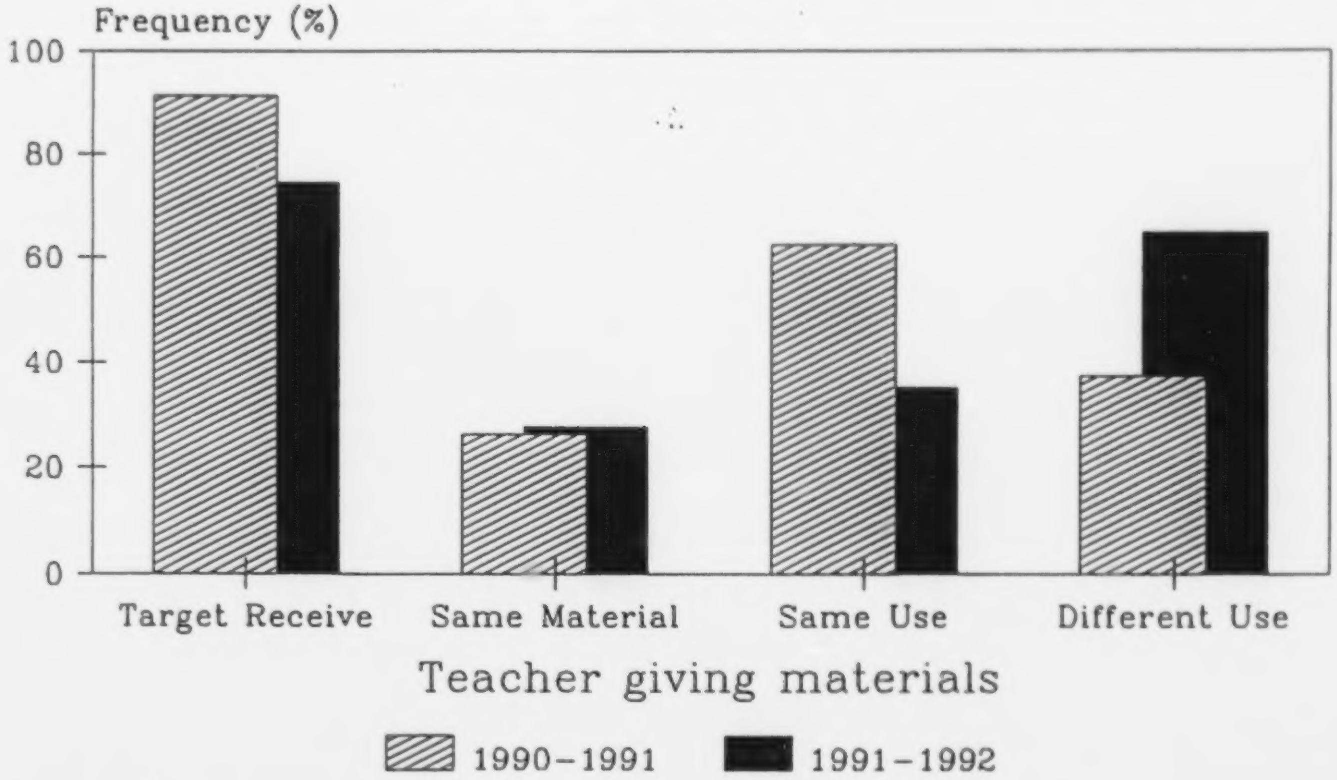
Classroom Ecology Scale

By Grade – Second Grade



Classroom Ecology Scale

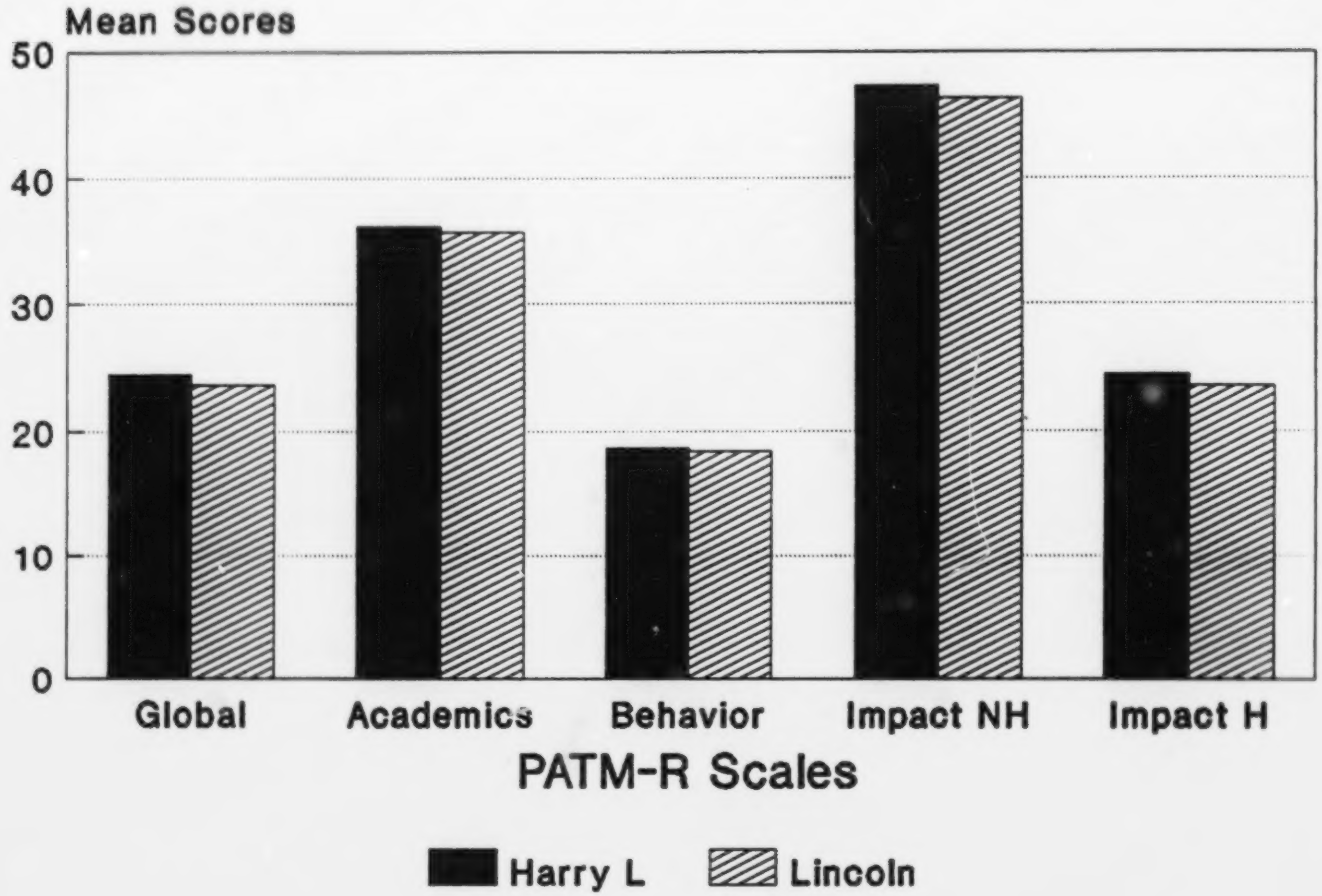
By Grade – Third Grade



FAMILY ATTITUDE SURVEY

- all parents of K-2 in district (n= 332)
- no significant difference among buildings
- high degree of comfort with mainstreaming
- concern about sufficient support for teachers
- unaware of array of supports in place
- concerns about value of inclusion for certain groups of students
- diversity viewed as essential to district outcomes

Parent Attitudes About Mainstreaming



OUTCOMES OF INCLUSION ON STUDENT LEARNING

(1) Impact of inclusion on peer achievement
(data are being included in brief report currently in preparation)

(2) Impact of inclusion on peer learning
(final; data are included in manuscript is currently under review)

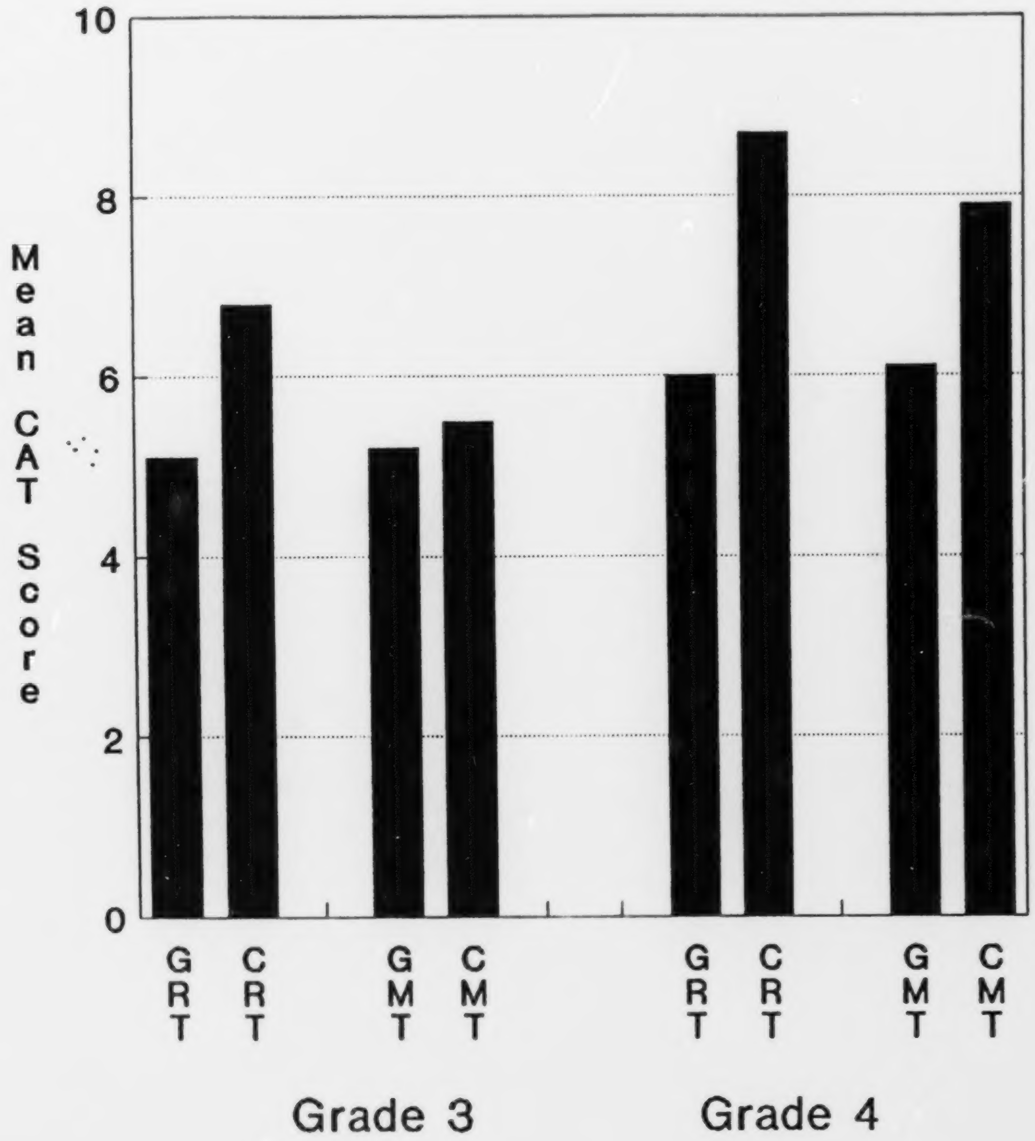
(3) Personal and professional effects of inclusion on general educators
(final; qualitative study conducted by Dr. Beverly Rainforth under auspices of Collaborative Education Project with funding from the California Research Institute)

IMPACT ON STUDENT LEARNING

(preliminary general findings)

- There is no evidence that typical students who have students with severe disabilities as classmates for an extended period of time (at least 2 years) experience any decrement in learning performance as assessed on a standardized achievement test
- Analyses of how teachers and students use instructional time indicates that there is no significant decrement in the quality of instructional time, in disruptions to class, or in the intensity of teaching when students with severe disabilities are class members
- Teachers report positive effects on personal attitudes, classroom quality, and professional knowledge/skills as a consequence of having students with severe disabilities in their classrooms
- Teachers report that instructional supports for themselves and their students are critical to the success of inclusion

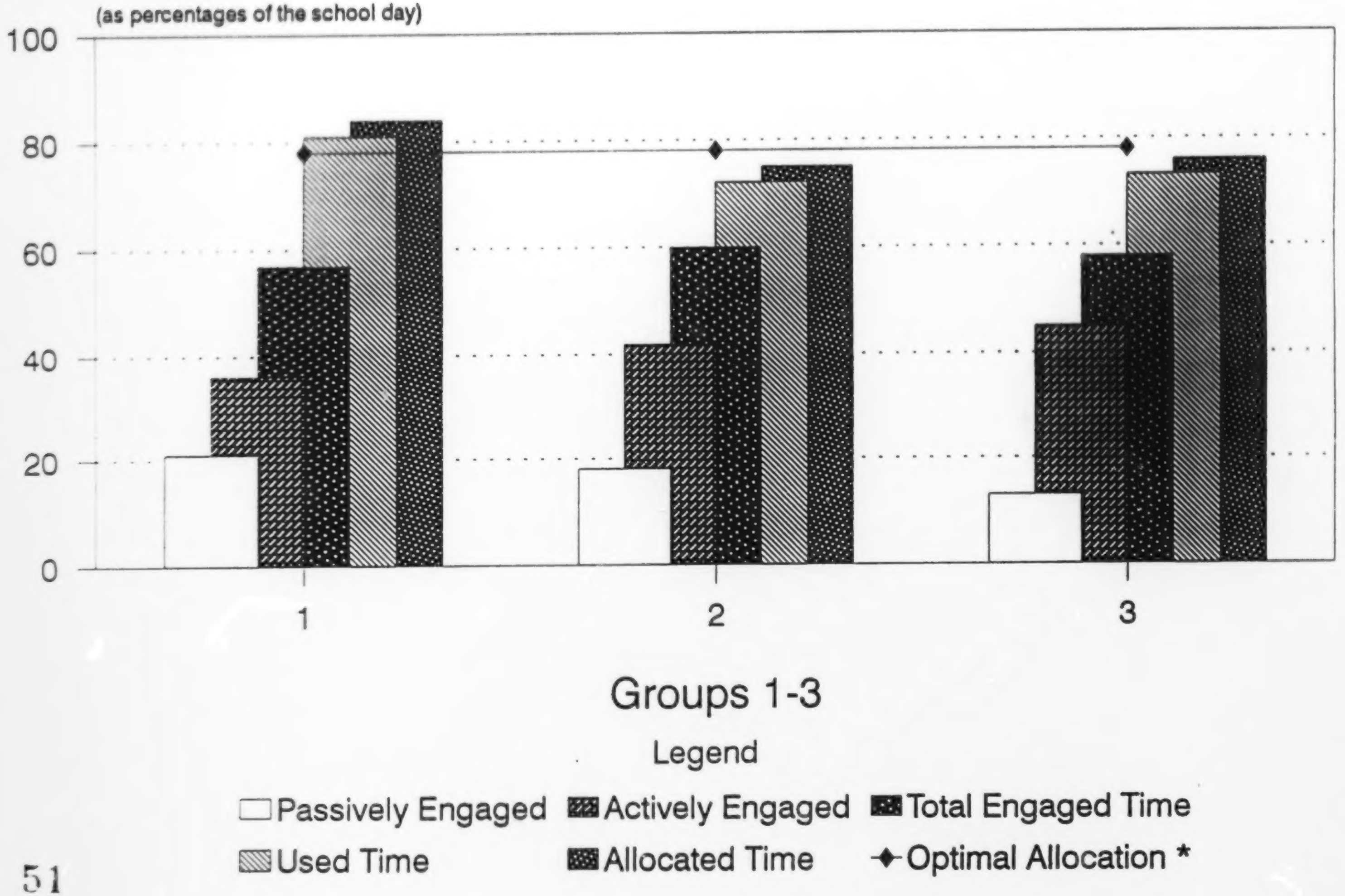
Achievement Data
Classmates for 3+ Years



Harry L. Johnson Elementary

GRT = classmates with no prior contact
CRT = classmates with 3+ years in classes serving target students

Figure 1
Allocated, Used and Engaged Times



* deducting time for specials/lunch

Abstract

Including students with severe disabilities in regular classes is being advocated on the basis of benefits for children with and without disabilities, but there is litte information on how it effects their teachers. This study used an ethnographic research methodology to identify effects of inclusion on regular class teachers in one elementary school. Teachers expressed and demonstrated overwhelmingly positive effects, with findings organized into eleven themes about teacher attitudes and practices. These findings are consistent with other emerging research.

STRATEGIES TO PROMOTE INCLUSION

(1) Collaborative problem solving steps (final; five steps generated and used by by staff with adults and students to resolve issues of concern; data from observations and teacher reports reflect situations in which collaborative problem solving was employed successfully to address issues of exclusion)

(2) Strategies used by general educators to promote social relationships (preliminary; data were gathered as part of a joint study with C. Peck and colleagues; manuscript in preparation)

COLLABORATIVE PROBLEM SOLVING PROCESS

- IDENTIFY THE ISSUE
- GENERATE POSSIBLE SOLUTIONS
- SCREEN SOLUTIONS FOR FEASIBILITY
- CHOOSE A SOLUTION TO IMPLEMENT
- EVALUATE THE SOLUTION

SAMPLE CPS ISSUES AND SOLUTIONS

ISSUE RAISED	IDENTIFIED BY	SOLUTION
Physical/social		
Child in wheelchair seated at different table in cafeteria than his classmates (lunch monitors concerned about blocking aisles)	Teacher	Reconfigure tables; assume responsibility for putting them back when lunch is done
Child not active participant on playground; not using slide	Peers	Get her a helmet; have peers take her down the slide
Child not participating in library (2nd floor) (child is large, limited lower extrem. mobility)	Teacher	Principal, male sp.ed. teacher, male gym teacher, and janitors take turns helping to transport him up 2 flights of stairs
Social		
"School only" friends; few if any contacts on weekends	Parents Teacher	Circle of Friends Club (run by parents; grown from 35-75 peers; recreational weekend fun)
Parents of children with special needs not connected with parents of general education students	Primary Team	T-shirt painting night; class picnic
Child with multiple disabilities needs to be included in "field days"	Team	Modify all activities; peers take turns pushing wheelchair through events;

Academic

Mother's Day cards - How can someone who cannot talk/hear well let her mom know how important she is?	Aide	Peers help her make a book; have her make choices to say why her mom is important; she chooses which table to work with
Child unable to use math extension dart game	Peers Teacher	Catapult sling shot made from pencils, paper clips, and tape; activated by pencil attached to baseball cap; head movement released velcro ball.
Child with 2 shunts allowed limited physical activity in gym; how to get him more involved	Team	"Gym helper" - leading warm ups; giving "start" and "stop" directions; modify activities for minimal contact with peers;
"Best buy" math lesson- how to include students with profound disabilities	Aide Teacher	Having "best buy" center around juice. Both students could use switch activation to work blender;

Staff

Child arrives on early bus before there is an aide to take her to playground; bus drivers always call her teacher to bring her into building before school; (constant interruption; all other students go from bus to playground; bus arrives on street- children must walk around building to enter playground)	Playground monitor Teacher	Kids from bus, including her brother, walk her to playground; monitors given walkie talkie so bus driver can let them know she is off bus and coming to playground.

STRATEGIES TEACHERS USE TO PROMOTE SOCIAL RELATIONSHIPS

- "Turning it over"/empowerment of kids to make it work
- Active facilitation of peer interactions
- Community building
- Modeling acceptance and being accepting
- School climate and value base
- Classroom organization

IX. PROJECT IMPACT

This section of the final report details the products, dissemination activities, publications, and summary of findings for the field as an indication of the project's effect on students, practitioners, and families.

The material which follows indicates that this Project has had widespread impact on a variety of important groups, including children with and without disabilities, general and special education practitioners, administrators, and parents. Over the three year period, staff from this project (and in several cases administrators and practitioners from Harry L. Johnson Elementary School) were involved in the following dissemination activities:

Products developed:	3
Articles published or accepted for publication:	4
Articles submitted for publication review:	1
Conference presentations:	18
Consultation visits:	10

While published work in professional journals is clearly valuable for advancing knowledge about project findings, we believe our strongest impact emerged from our face-to-face contact at conferences and in consultations with others. It was in these arenas that we could discuss practical issues of implementation, tailor our findings to be of use to others, and provide technical guidance for administrators, practitioners, and parents who attended these sessions. The cost-benefits and sheer number of individuals influences on these 20 sessions reinforces the potential power of direct contact dissemination strategies in promoting adoption and knowledge utilization of funded project findings.

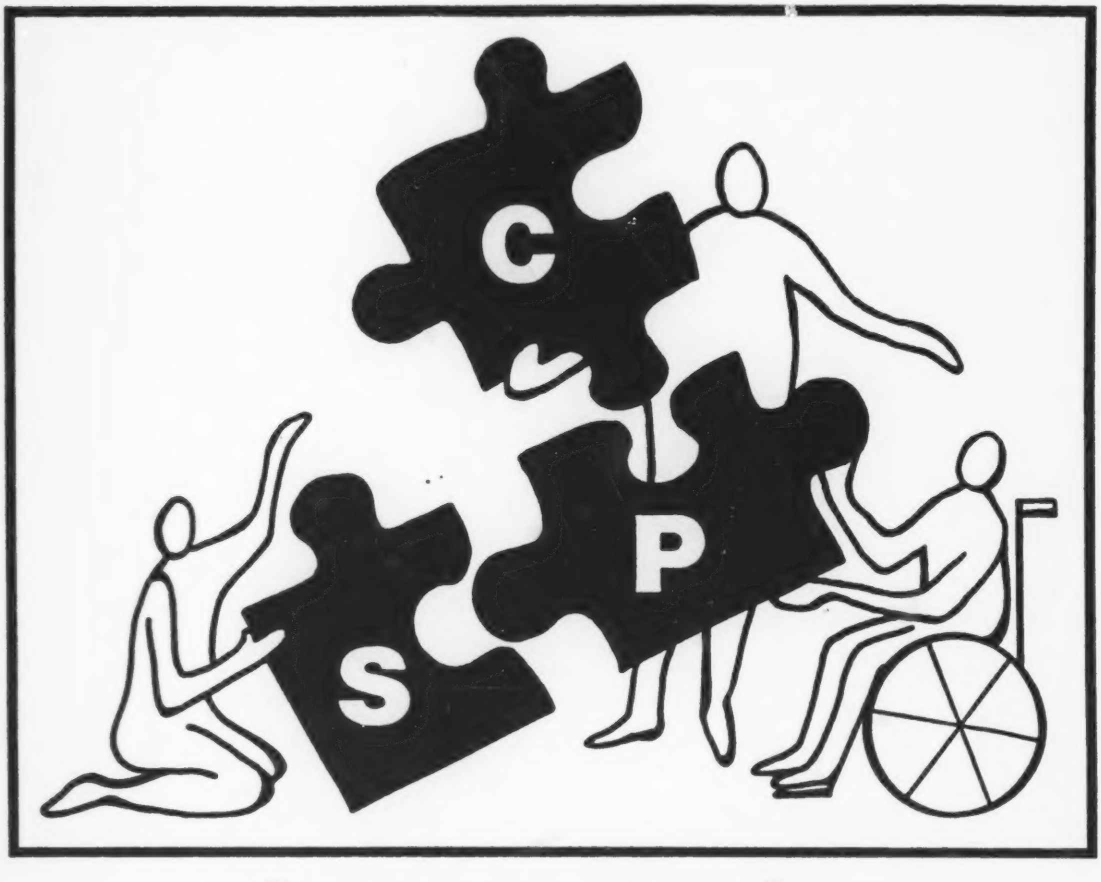
PRODUCTS DEVELOPED BY STAFF AND COLLABORATORS OF THE COLLABORATIVE EDUCATION PROJECT

(1) Collaborative Problem Solving: Instructor's Manual (Salisbury, Evans, & Palombaro, Eds.)

(2) Working Things Out Our Way: Collaborative Problem Solving Student Manual (Salisbury & Palombaro, Eds.)

(3) The Effects of Full Inclusion on Regular Education Teachers (Rainforth, B.) (1992)

Collaborative Problem Solving



Instructor's Manual

Christine L. Salisbury, Mary M. Palombaro,

and Ian M. Evans

About the Manual

This manual describes a five step Collaborative Problem Solving Process (CPS) that can be used to enhance the inclusion of students with severe disabilities in general education settings. The process was developed cooperatively with teachers from Harry L. Johnson Elementary School in Johnson City, New York. The scenarios reflect actual situations from their classrooms and are intended to illustrate the application of the process to issues affecting the physical, social, and instructional inclusion of students with disabilities.

A companion document, "No Problem: Working Things Out Our Way", was generated by second, third, and fourth grade student members of an after school Problem Solvers Club at Harry L. Johnson Elementary School. In this booklet, students describe the Collaborative Problem Solving Process they used in addressing issues they identified as important. The text was written by the students to be useful to other students who might be interested in learning the CPS process.

The 5-step CPS process is the same in each booklet. However, we simplified how we referred to each of the five steps in working with the students. These alternate headings are included in quotations in this instructor's manual. Although each booklet may be used independently, we recommend that they be used in tandem to optimize the likelihood that teachers and students will work together to solve issues each identifies as important-either for themselves or on behalf of others.

Our experience in an inclusive school suggests that a collaborative culture can create the conditions necessary for students, teachers, and parents to work together so that all children can be included in the activities and events of their neighborhood schools. We hope these manuals are a useful support to you, your students, and the parents in your program.

COLLABORATIVE PROBLEM SOLVING

WHAT IS COLLABORATIVE PROBLEM SOLVING (CPS)?

CPS is a process by which children and adults work together to resolve conflicts and problems. We have generated a set of guidelines to help individuals
utilize CPS in their classrooms with students to
resolve barriers to inclusion.

WE HAVE SEEN POSITIVE OUTCOMES FROM THE USE OF THE CPS PROCESS. THROUGH CPS, PEOPLE...

- Develop concern for others
- Accept differences as well as similarities
- Learn how to work with others to resolve problems
- Are empowered to create change
- Find ways to meaningfully include everyone in activities

ENHANCING THE SUCCESS OF CPS...

It is important to provide both structure and opportunity within the classroom schedule to teach and implement collaborative problem solving. In order for students to participate in the process, they need to be taught how and when to use the process. By modelling informally, as well as teaching directly, teachers communicate to children that they support the process and value their participation in resolving barriers to inclusion in the classroom.

THE COLLABORATIVE PROBLEM SOLVING PROCESS

1. IDENTIFY THE ISSUE: "WHAT'S HAPPENING HERE?"

An issue arises whenever there is a discrepancy between what is happening and what we would like to happen. To identify the issue, state the desired outcomes. For example, the class has a commitment to having all students involved and during an activity one student is sitting with nothing to do. Avoid referring to the issue as a problem: we want to discourage students from seeing the inclusion of their peers with disabilities as a problem.

2. GENERATE ALL POSSIBLE SOLUTIONS: "WHAT CAN WE DO?"

Brainstorm potential solutions to the issue. Creativity should not be limited, so discuss all solutions with no value judgments as to whether the solutions are viable or not. The intent is simply to identify any possible alternative to what is currently happening.

3. SCREEN SOLUTIONS FOR FEASIBILITY: "WHAT WOULD REALLY WORK?"

There are two main components to this step.

(1) Once all the solutions have been proposed, review each recommendation in light of the following criteria:

A. Does the solution match the value base of the group? For example, does the solution demonstrate concern for other, foster inclusion, and/or respect differences?

B. Is the solution feasible? Can the individual or group implement the solution? Are all the materials available? Can it be accomplished in the setting where the problem arises? Is there enough time to do it?

(2) Predict the possible outcomes/success of the solution. This allows the participants to identify the potential benefits or detriments of the proposed solutions, and assists in deciding which one to implement.

4. CHOOSE A SOLUTION TO IMPLEMENT: "TAKE ACTION!"

Reach consensus on which solution or combination of solutions to implement. By having all stakeholders involved in the process of identifying potential solutions and agreeing on which one to "go with", we increase the likelihood that participants will support and be committed to the solution the group has identified.

5. EVALUATE THE SOLUTION: "HOW DID WE DO? DID WE CHANGE THINGS?"

Participants need to evaluate whether the proposed solution had its intended effect. In other words, was the issue successfully resolved, did the child or adult get what they needed, or are there remaining concerns? How do members of the group feel the process went? In light of what the group has learned from this experience, is further action necessary?

PROBLEM SOLVING SCENARIO

PHYSICAL

1. IDENTIFYING THE ISSUE

The physical therapist comes to the first grade team and tells them that one of the students who is beginning to walk with a walker needs to spend 20 minutes a day in a prone stander to develop muscle strength. The teachers on the team (regular and special education, occupational and physical therapist) discuss how this could best be fit in her school day since she participates in almost all academic tasks. After a few minutes of discussion they decide to ask the class to help them figure out what would be the best time of day for Amy to use the prone stander.

Mrs. V., the first grade teacher tells the class at large group circle in the morning that she has a question that she needs their help answering. "Mrs. Griffith (the physical therapist) is working with Amy, as you know, using her walker. In order to use her walker, she needs to work on building stronger muscles in her legs. One way she can do that is by using this piece of equipment (pointing to prone stander) and practicing standing for 20 minutes every day. Now we need to figure out how can Amy do that and not miss out on anything we are doing. You know she does everything else you do during the day; how do we find time for Amy to work on her standing and make sure she is included in everything else here in first grade?"

2. GENERATE ALL POSSIBLE SOLUTIONS

Nate suggests, "Why doesn't she use it at her desk? You know like when we're writing or reading or stuff?" "O.K., Nate, that's one time we might be able to do it. Anybody else have any ideas?" Brendan asks, "But then how would she do her writing? And she couldn't put her finger on the words in the book if she's standing in that. She won't reach the pages." "Well, Brendan we'll have to think about those things but first let's hear everybody's ideas, O.K.? Anyone else have any others?", Mrs. V. asks.

"How about if she used it while we were on the rug for sharing and caring time?", suggests Lindsey. "We just use the big books then and we're all just sitting there so she could just stand in it with us." "That's a thought", says Mrs. V..

3. SCREEN FOR FEASIBILITY

"Well, we have two good ideas here. What does everyone think? What do you think you would like, Amy?", Mrs. V. asks. Several students raise what Brendan had said previously about Amy not being able to do her work easily while in the prone stander. Amy nods her head when someone says, "That would be hard to do stuff."

Mrs. V. asks, "O.K., then what about Lindsey's idea? That do you think about caring and sharing time?" Several people say that would be the best time, and Amy begins vocalizing "yuh" and nodding her head. "You think that would be a good time, Amy?", Lindsey asks her. Amy responds "yuh".

4. CHOOSE A SOLUTION TO IMPLEMENT

"It sounds like people think we should try it during caring and sharing on the rug first thing in the morning, then. Mrs. Griffith, could you be here tomorrow to show us how it works and help us get started the first day? We begin at 9:00." The physical therapist agrees and arrives the next day a little before 9:00 to help get the stander set up. Any stands in it with several friends around her either seated or standing, leaning on the table she is propped against.

5. EVALUATE THE SOLUTION

After about a week, the physical therapist comments to Mrs. V. that she hardly ever has to help get the stander ready in the morning, that all Amy's friends are doing it for her. They both note that classmates recognize when Amy is getting tired in the stander and looking toward the clock and encourage her, "Just five more minutes, Amy". They also have begun to pick up on the adult example and help straighten her knees or move the supports on the stander slightly when they are slipping. "It's just part of our routine now", the teacher comments.

PROBLEM SOLVING SCENARIO

SOCIAL

1. IDENTIFYING THE ISSUE

On visiting the school one day, Mrs. S., the mother of a girl with multiple disabilities, notices the high level of adult assistance her daughter needs to transition from one classroom to another. She raises the issue with her child's fourth grade teacher and expresses an interest in reducing her daughter's reliance on adults and in developing better peer assisted transitions across different environments. With support from the teacher, she selects a core group of Tracy's four closest friends to discuss ways to deal with her concerns. They meet prior to the school day.

"I've been thinking about next year", she begins the meeting. "You will all be going to be C. Fred (the middle school in the district). When you get there you'll be changing the classes a lot during the day, and having to move to different rooms. I'm wondering how you think Tracy will do with that?" Anthony assures her, "No problem, Mrs. S., cause Mrs. R. and Mrs. W. (two aides who currently work with Tracy) will be there to help her." "Well, Anthony, we don't know that. They might stay here and work with other kids here. Besides, Tracy can't always count on them. She needs to learn to do things herself, right?" There is silence at the table as the student think.

"Well, let me ask you this", Mrs. S. says. "How are you going to do it at C. Fred? Who's going to help you?" Jennifer says, "Well, we'll help each other. You know, friends will do things to help you. Or the teachers there." The others nod and say "yeah". "We'll help Tracy too, cause we're friends with her", Anthony says. "Oh, Anthony, I'm happy to hear that. Do you think there are things we could be doing now to help Tracy once she gets to C. Fred? I mean, is she doing a good job here getting places by herself?" Several of the kids say that she does with Mrs. R. or Mrs. W.'s help. "Well, that's with their help. But she won't have that next year. What could we do to help her so she will be ready when she goes to C. Fred next year?", her mom asks.

"Maybe we could start working with her here. You know, so she like goes with us places instead of with Mrs. R. or Mrs. W.. Then when we go to C. Fred, she'll do it with us too", says Michelle.

"So what I'm hearing is we need to figure out a way to get Tracy to get places here with you guys or her class rather than always with adults? Is that right?", her mom asks. "Yeah, we better start so she can do it next year", Anthony says. "O.K., tell me how we could do it", Mrs. S. states.

2. GENERATE ALL POSSIBLE SOLUTIONS

The group thinks about the transitions they make during the day now and focusses on lunch and going to specials (gym, art, music, library, computer). "Well, we could have Mrs. R. wait at the back of the line when we go to like gym and we could keep Tracy in line with us. But if we had problems Mrs. R. could be there to help us", suggests Anthony.

"Yeah, or Mrs. R. could be at the front of the line when we're walking down and we could have Tracy be last in line with us and then she'd want to get there, says Jennifer. "Yeah, but what if she tried to run away from us or got mad cause she couldn't be with Mrs. R.?", asks Robby. "Then we'd be in trouble!" Mrs. S. suggests they think of all the ideas they can and then figure out how well each one might work.

They start a list on paper that includes both Anthony and Jennifer's solutions. They add another that would have Mrs. R. leave the classroom before the class left for specials and the kids would encourage Tracy to get to specials by telling her she could see Mrs. R. at that class.

3. SCREEN FOR FEASIBILITY

In discussing the possibilities of each proposed solution, the students worry that if Mrs. R. went to class ahead of them, if they ran into a problem she wouldn't be there to help them. "Could another adult help you?", asks Mrs. S. They decide they could ask Mrs. C., their teacher if she though she could help. Jennifer is concerned that if Mrs. R. was either at the front or back of the line Tracy would still want to be with her instead of listening to her classmates. After discussion they decide if they tried it they would put Mrs. R. slightly ahead of the class and Tracy towards the back of the line, so they could encourage her and keep her focussed on heading forward towards both Mrs. R. and the class they were supposed to be attending.

4. CHOOSE A SOLUTION TO IMPLEMENT

"Let's try when we go to the gym today to have Mrs. R. go down first while we're lining up and then we can keep telling Tracy she's there and we're going to meet her", suggests Anthony. "We have to check with Mrs. C. to see if that's O.K. with her and if she'll help us if Tracy has a problem", Jennifer reminds them. "Let's do that before we decide anything else so we know whether we're even going to try this", Robby says.

Mrs. C. says she thinks it's a good idea and she will help them. She asks if they are going to explain it to the class and Tracy so everyone knows what's going on. "Yeah, we better tell Tracy or she's not going to understand what's going on and she might get upset", Anthony says. "How about Mrs. R.?", Mrs. S. asks. "Is someone going to fill her in on this, too?" Michelle says she will tell her when she and Tracy arrive at class. The group agrees to meet in two days and see how it is going.

5. EVALUATE THE SOLUTION

The group meets again before school two days later to share with Mrs. S. how their solution has worked. "Well, we tried to have Mrs. R. leave and go before us, but I don't think Tracy understood what was going on. She got mad and stuff and Mrs. C. had to help us in the hall. We got to gym late and the teacher told us we better be there on time tomorrow", Anthony says. "Yesterday we had Mrs. R. walk at the front of the line with Mrs. C. and we were at the back with Tracy and she did O.K. most of the time on the way there. But when we get to some place like around a corner and she can't see Mrs. R., she turns around and starts looking for her and doesn't always follow us."

Mrs. R. and Tracy sit in with the group during the discussion and Mrs. R. mentions that she thought that there were too many people giving directions to Tracy at once and with everybody telling her what to do in different words, she got confused and that made her want to get away from everyone. Tracy's friends agree that was a problem. They talk about how other kids from the class got involved and they were trying to help but it got noisy and Mrs. C. didn't like it. They decide to make a sign up list and post it in the classroom. Everyone in the class will have an opportunity to sign up to be an "encourager", someone who keeps telling Tracy she's doing a good job and prompting her to keep coming with the class, or people could sign up to be a "buddy" to walk with her in line and keep her with the group. There will only be 1 encourager and 1 buddy each time the class makes a transition. Their hope is that this strategy will provide an equal opportunity to all students interested in being involved, while reducing the disruption caused by too many people helping at once.

"Is there anything else you need to do to make this go smoother?", Mrs. S. asks. "What about the specials teachers?" "Oh, yeah, man if we're late again we might get in trouble", Robby says. "O.K., what do you think we could do about that?", Mrs. S. asks.

The group composes two letters to the principal. The first requests a meeting with the specials teachers to explain what they are doing. The second letter (see below) asks the principal to share their plan with other teachers so they will understand why students might be in the hall with Tracy without an adult present.

> "Dear Mrs. Cole and Mr. Sine,
> We are working with Tracy. We are trying to help Tracy get to classes with kids. Mrs. C., Mrs. R., Mrs. W., and Mrs. S. are meeting with us to solve problems. It's important we do this to prepare for C. Fred. It's also important that all teachers know what we are doing. They may be able to help us when we are having trouble."

At their meeting with specials teachers the group explains their goal of having Tracy move to specials classes with the class and not rely on adults. They explain how they are helping and that it might take some extra time for them to get to class. The teachers agree to work with them but tell them they can't be more than 3 minutes late. They all agree if it takes longer than 3 minutes for Tracy to get to class, the teacher assistant will take over so her classmates can get to class on time.

Post-script:

Tracy made progress in moving to different classrooms within the building with her class and with less adult assistance. Her group of friends expanded and continued to meet every week to problem solve ways to assist Tracy at both home and school.

PROBLEM SOLVING SCENARIO

INSTRUCTIONAL

1. IDENTIFYING THE ISSUE

All students in the fourth grade are required to participate in the Self-Directed Learner (SDL) fair. They are to choose a topic, identify other information about that topic they already know, and then identify other information they wish to learn about the subject. Once they have researched their topic, they must choose a way to present the information to others attending the fair. Some choose to make or build a model, others to draw a poster or write a report; there are no limitations on how they present the information.

Casey is a fourth grader with significant disabilities, including sensory, physical and cognitive delays. One of the teacher assistants who works with her chooses three classmates who have completed a great deal of their own projects to assist her in developing a project for Casey. They meet together during classroom time identified for the SDL fair.

"I thought Casey could do something related to the body or body parts", Miss P. begins. "But I'm not sure what and I was wondering what you guys thought would be a good way for Casey to present information on this and participate in the fair. Do you have any ideas?"

2. GENERATE ALL POSSIBLE SOLUTIONS

"You mean like we could trace her body on a paper and write stuff about the body?", asks Tom. "That's an idea", Miss P. says. "I'd like what we do to be something Casey learns from. Remember, you're supposed to be researching and learning new information about something and sharing it with others. How could we make this a learning experience for Casey, too?"

"What if we did something about how Casey's body works?", asks Jackie. "Cause, I mean lots of people don't know and wonder about her and stuff."

"Wait, I got it! We could do it on like how she does things, but they're just different than how we do things", Peter says excitedly.

"But she does some stuff that we do, too", Tom reminds him.

"Well, we could do both: things she does the same and things she does different than us, right?", Jackie asks.

"How would you present all this info?", Miss P. asks them.

"I think we should use her computer. You know, the one where you draw pictures and stuff. We could draw a picture of her doing something and then have the computer tell how she does it the same or different from us."

3. SCREEN FOR FEASIBILITY

"O.K., do you think we have enough time and can you get all the information you need before the fair?", Miss P. asks.

"We could make a list of things we know about Casey and all her body and how she uses it at school. Then we could compare it with us", Peter recommends.

"What if we wrote her mom and dad in her notebook and asked them for stuff she does at home? Cause we might not know everything she can do. Or she might do different stuff at home", Tom suggests.

"I don't know if we have enough time to do all the body parts. It takes a long time to draw good pictures on her computer. Maybe we should just choose a few", Jackie adds.

4. CHOOSE A SOLUTION TO IMPLEMENT

"O.K., we have to get back to the class soon. What do you think we should go with?", Miss P. asks them.

They agree that the computer program showing what Casey does the same and different from the rest of us would be a good idea. "Casey can operate the switch for people at the fair and run the program and then they can really see how she can do things, just different from us", Peter says.

The students compose a letter home to Casey's parents telling them about the project they are doing and asking for information about the things she does at home. Her mom sends them in a page with information about how she uses her arms, legs, eyes, and ears and tells then she appreciates them helping Casey.

Pulling together the information from home, as well as their notes, they decide to just draw a body part on the computer screen since drawing Casey using each body part is too time consuming and might not be completed by the fair. All the students together write the script which Miss P. enters in the computer for them. They each have a turn drawing one body part and two students together draw the fourth screen, while Casey and Peter complete a poster explaining the project to be posted with the computer during the fair.

5. EVALUATE THE SOLUTION

At the fair, the poster invites people to "Push the red switch below", while learning about the ways that we are all alike and different. As someone pushes the switch the first picture enters the screen and then the computer reads the script they wrote:

For eyes: "I use my eyes just like you. Sometimes I play games with my eyes by pretending to look away. My eyes can look happy or sad. I close my eyes to sleep or if it's bright and the light is hurting my eyes. I look at 2 different objects. Sometimes I pick the one I like. I like to watch TV."

For ears: "I can listen with my ears. When I hear someone I know I can respond by making faces or noise. I move my hands and feet when I hear music."

For feet: "I kick my feet when I am happy or excited. I kick my feet in the bathtub to play in the water. If I have help from a friend, I can kick a ball."

For hands: "With help from a friend, I use my hands to do things like brushing my hair and catching a ball. I rub my eyes when I am tired or they are itchy and watery. I rub my nose when I have a cold or if it is runny. I use my hands to splash in the water when I take a bath."

Peter asks Miss P., "Did you see the crowd around Casey's computer? People really thought it was neat!"
"And did you see Casey's face when her mom told her it was a good job? She was really smiling and happy," said Tom.
"I think you all did a good job. Nice work!"

"No Problem"
Working Things Out Our Way

Collaborative Problem Solving

Christine L. Salisbury and Mary M. Palombaro, Editors

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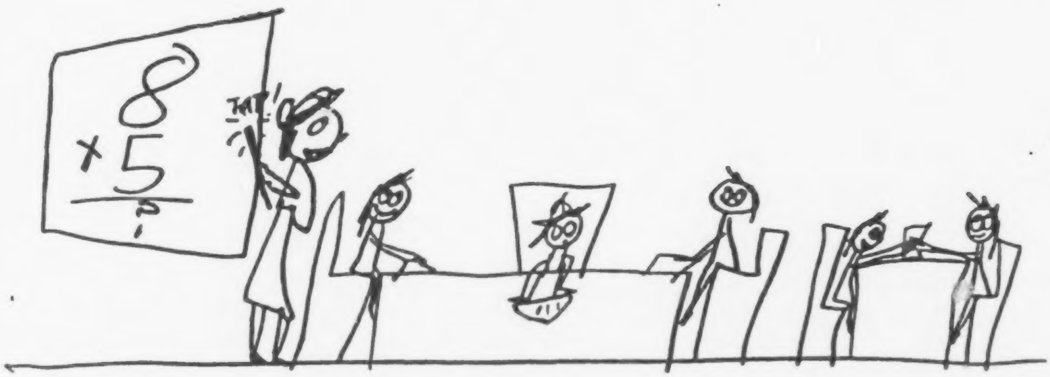

Authors' Page

This book is about solving problems. We learned a way to think about solving problems and we wanted to share it with you. We wrote this book when we were members of the Problem Solvers Club at Harry L. Johnson Elementary School in Johnson City, New York. Anybody in the school could be involved in the Club and kids from second, third, and fourth grade participated in it last year. That's us in the picture.

Problem Solvers Club 1992

(left to right, top first) Mr. Veech, Nicole Hayes, John McMahon, Michelle Henry, Sara Haun, Sarah Burnett, Mrs. Kolbenschlag; Stacy Stashko, Tim Groome, Peter Mucha, Kristen Nagy, Brian Sas, Jessica O'Brien; Cliff Stewart, Jennifer Napoli, Ted Nead.

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Introduction

The Problem Solvers Club was started because we wanted to write down for you how to use the Collaborative Problem Solving (CPS for short) steps we learned this year in school. What's nice about CPS is that you learn to work things out with other people so that everyone feels okay about the solution. Plus, you and your friends get to make the decisions about which solution to try. We used CPS to find solutions that were good for all kids in our school.

In our Problem Solvers Club we worked in cooperative groups. There were three groups and each group wrote one chapter in this book. Mr. Veech and Mrs. Kolbenschlag worked with each group if we needed help. Mostly we were able to do our projects just by working together. We started by writing down the five steps of Collaborative Problem Solving so that everyone in the Club knew all the steps. Then we worked in our groups to pick a problem we felt was important. After that, we used the CPS steps to try and solve that problem. Then we wrote down for you how we did each step. Dr. Salisbury and Mrs. Palombaro put the book together for us and used some of our pictures, posters, and lists to show you how our projects worked at school.

We hope you like this book and that it helps you work things out at your school!

The five steps we followed are on the next page so you can follow them too.

Collaborative Problem Solving's 5 Steps

1.WHAT'S HAPPENING HERE?

This is where you decide what the problem is. Sometimes that's hard because you know something's not right but you don't know exactly what it is. Talking about it with other people helped us figure things out.

2. WHAT CAN WE DO?

This is the fun part. It's where you can brainstorm tons of ideas about possible solutions. They all get written down so that you can think about which one to try first.

3. WHAT WOULD REALLY WORK?

In this step you ask two questions for each possible solution. First, you ask: Will the solution be good for all kids? Second, you ask yourself if you or your group can really do this solution. Do you have all the materials you need? Is there enough time to do it?

4.TAKE ACTION!

In this step you first have to get everyone in your group to agree on which solution you want to go with. Remember, you pick the solution the group thinks is best and try it. You can always go back and try another way if you need to.

5. HOW DID WE DO?
(DID WE CHANGE THINGS?)

In this last step you need to figure out if your solution worked the way you wanted it to. Did everyone's needs get met or are there still things to be worked out? How did the members of your group feel about the CPS process? Do you need to take further action?

Chapter 1

"Stop, Drop, and Roll"

RESCUE
Suie.S

What's Happening Here?

The people who are having the problems are people with disabilities and injuries! Disability means someone who can't do something as good as us. It also means a person who can't walk talk hear or see. There is a person in our school named Stacy and she is confirmed to a wheelchair. Alot of people are scared of her. She can write with someones hand over her hand. She can usually watch and follow bright colors. Sometimes she can even sit by herself but someone has to be behind her because she can fall back and hurt herself. Stacy can't walk or talk but she shows actions to show feelings by crying, laughing, smiling and can wave her hands alot).

The problem that we picked was getting out of the rescue window on the first floor.

What Can We Do? What Would Really Work?

Our rescue windows were too high for people with disabilities and injuries so our group decided to fix this. Example: There's a fire in the school right outside the door. You have to use the rescue but there's a person in a wheelchair. What do you do?

Our solutions were:

1. a curly slide for upstairs but it was too expensive.
2. build stairs to rescue window. Ted brought in some nails to show the group what kinds we could use. We found that number 10 nails were the best.

After we called lumber yards, we found that prices were too high and it would take too much time.

3. get rope ladder out the rescue window. We did not pick it because it would swerve back and forth and you might drop Stacy, and we wouldn't want to see that, now would we!!

Take Action!

The solution we picked was we made a special set of fire escaping ruiles for people with injuries or disabilities. The reason we picked this was because it was the only one we could do. For this solutions we talked to Mr. Veech, our instractor, about the fire escaping ruiles.

We had to talk about how we were going to tell people about it. The materials we needed were paper, pencil or pen, and a copier. We had to use these materials to make copies of the rules. We had the job of writing the rule. - that was Sara and Nicole's job.

Nicole and Mr. Veech and Sara ran them off on a copier. John wrote the introduction to rules to tell the teachers what they are. Stacy. Sara, John, and Nicole then passed the rules out to all the teachers on the first floor.

Fire escaping injered or dissabled people

By Sara Haun

1. One person goes out a Rescue Window.
2. Next, one person has Stacy.
3. One person Waits by the window.
4. Hand Stacy to the heater person.
5. Heater person hands Stacy out.
6. All get out.
7. Heater person is the navagator. {Navagator is the person that sees for the person that has the injured person /stacy.}
8. Go to a meeting spot.

Dear teacher,

You are getting these fire escaping rules for when you have an injured persomes in your class. Please send what you think of these rules to room 102.

Sincerly
Lightning thinkers
John McMahon, Nichole Hayes,
Sara Haun, Stacy Stashko, ~~and~~ and
Ted Nead

How Did We Do?

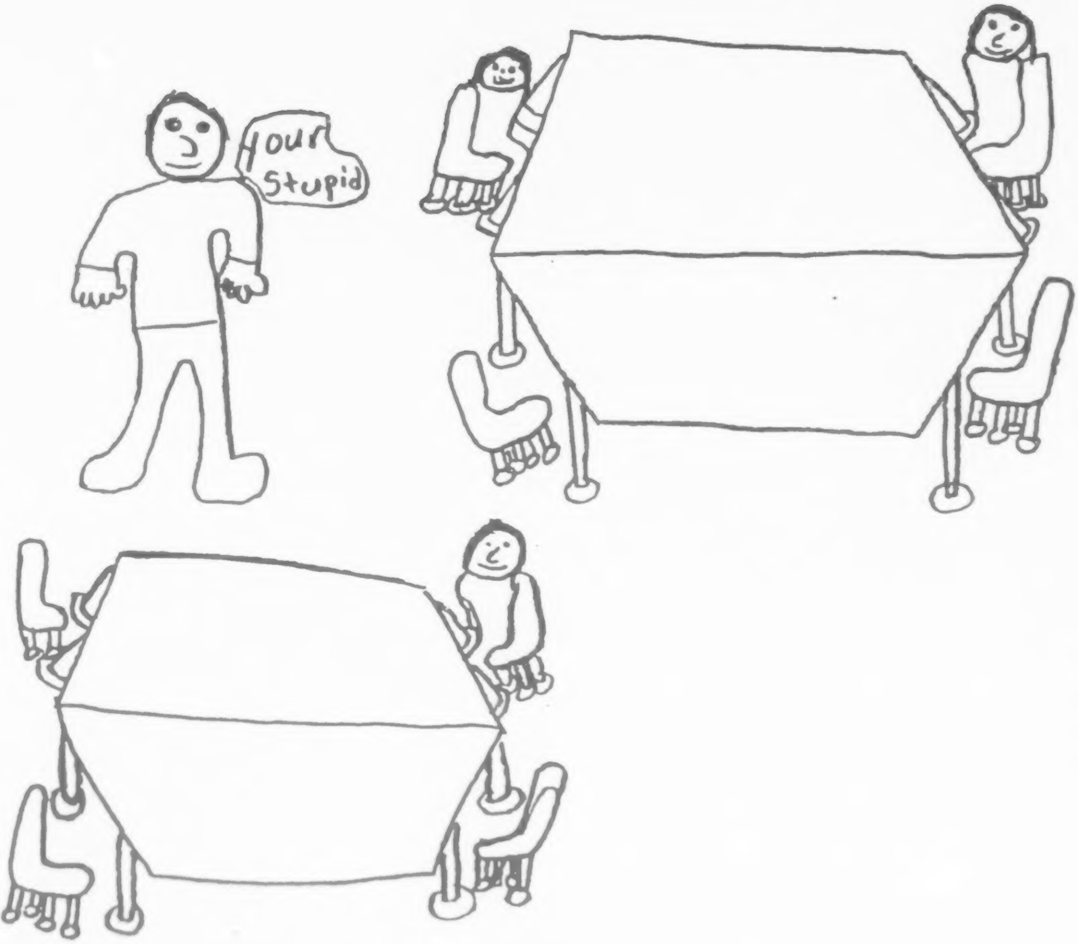
The fire escaping rules worked well. Sara thought that once they got half way through it was a piece of cake. In our cover letter, we asked for reponses from the teachers. we didn't get one back. We felt P.O.'ed like the teachers didn't care about our solution. The school still practices fire drills the same old way, they don't practice with the rescue window. So what's the use of having them if they're not going to use them.

Actually the solution did help the group and only this group because We know more about fire in our classroom. It make you More aware of the possibility of fires out of school. To change it or make it work better, Sara would have shared the solution with classes, herself. John would have riminded them (teachers) to share with their class. Sara would do it again, she feels good that it's done. Ted felt good about the group because he thinks they're good people. John really feels happy and proud about the group He would do it again - mabe.

Stacy gave her opinions. By having her be the person to practice the drill, she felt more comfortable, in case there ever was a real fire. It's important for the entire group to be there to do this project well.

Chapter 2

"Sticks and Stones"

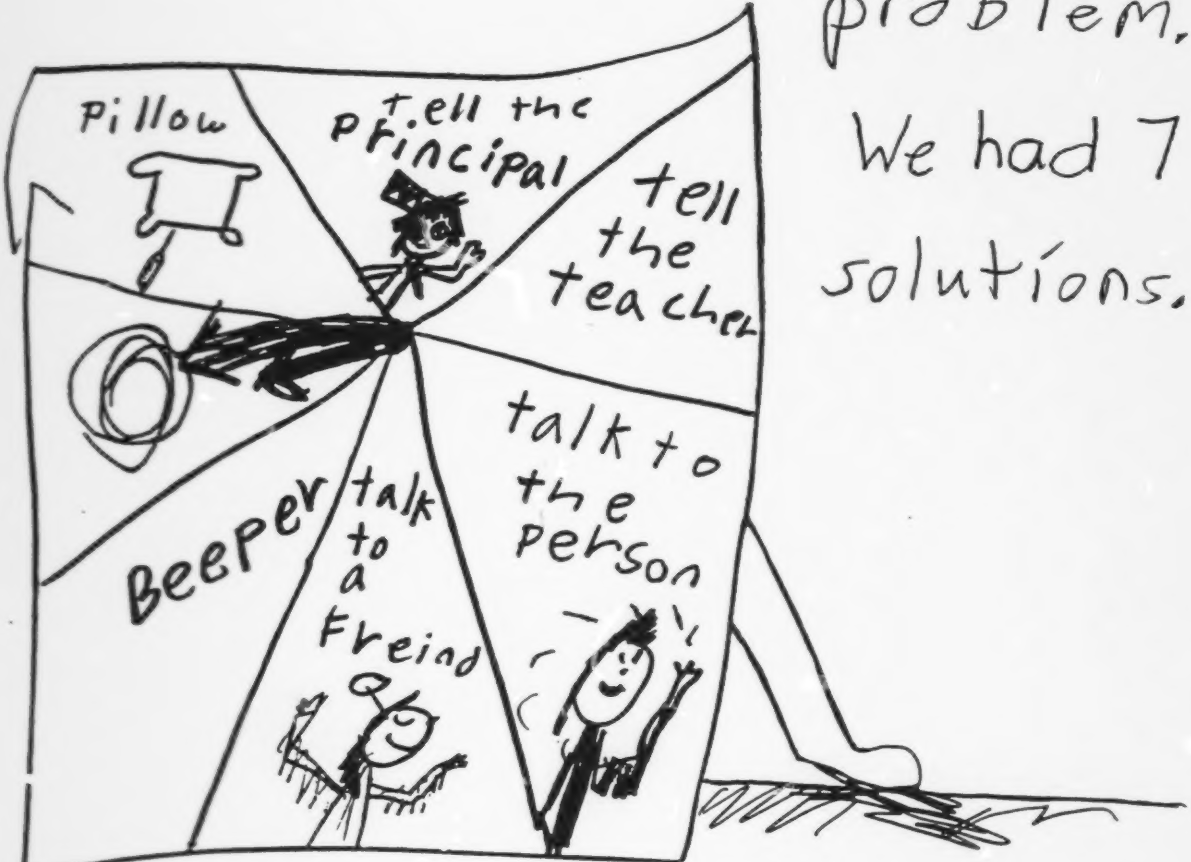

Your stupid

What's Happening Here?

The people that were having the problems were people in our group . , our friends , kids on the playground and other people in school. The problem we picked was located in the gym, the classroom, on the playground, in the hallways, in the cafeteria and on busses. We picked this problem for many problems including running in the halls, fighting on the playground, chewing gum, climbing in the bathroom and family problems. When we picked name calling we all agreed because We have all been called names. When it Was time to pick it was actually easy because Kristen said, name calling" and we all agreed.

What Can We Do?

We brainstormed some solutons to solve the problem. We had 7 solutions.


Pillow
tell the Principal
tell the teacher
talk to the person
talk to a Freind
Beeper

The first solution is to try to stay away from the person who is calling you names.

The second solution is to tell the teacher "sos and so is bothering you. You could also tell a principle or a grown up. Next you could talk to the person who is calling you the names. Tell a friend your fellings is the next solution. Try this solution. If you know afriend who is getting called names why don't you explain the differences. We got a solution from someone who was not in our group. The solution was a name calling beeper. A name calling beeper is if you are walking in the hall an someone pass by you and they start to call you a name it would start to beep and you would say "Don't you dare!". Our last solution was to beat up a pillow.

What Would Really Work?

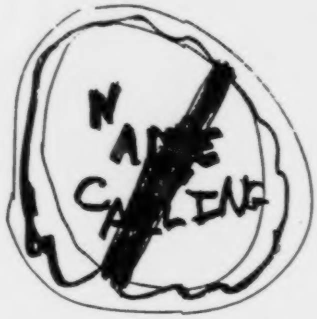
We did not pick a name calling beeper because we thought it would not work as well as the others. We did not choose the pillow because you do not have a pillow in school to punch, you have to wait until you get home.

The solutions we picked were to make posters and tell people aabout how we feel on the morning announcements. We picked these solutions because we wanted to stop name calling and these were the easiest to do.

Take Action!

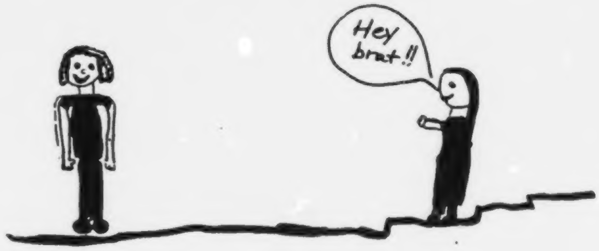
To try out one of our solutions, making posters, we needed to talk to Mr. Veech and Mrs. Kolbenschlag (our problem solving teachers) to get the supplies.

Do you know someone who is getting called names



Well why don't you explain the differences

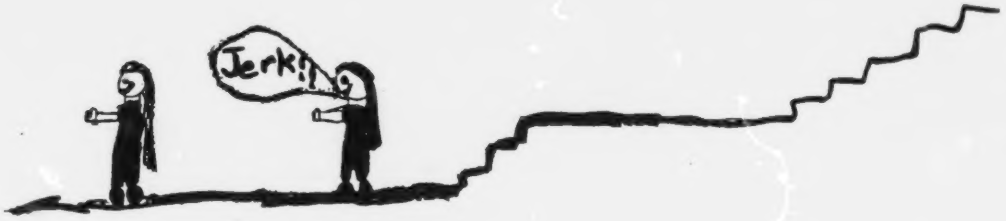
Are you getting called names.
Well we will give you one solution.



STAY AWAY FROM THEM

To make the announcements we had to talk to Mrs. Nye, who is a 4th grade teacher and incharge of morning announcements. For the posters we neededposter board, markers, and pencils. For making the announcements, we needed paper and pencils. The jobs we had to do were to make 6 posters and five announcements We had to make posters for the kids and the school to tell thme not to call names.

You still getting bothered bythe person who called you a name.



You should talk to the person who called you the name.

How Did We Do?

Things that did work well were the posters. The announcements really worked because the whole school heard them. If they didn't hear them the first day they were repeated teh next day. the solution helped the whole school so they will not get called names.

The things that did not work well was that our group was falling apart.

In the beginning our group was all there, then they stopped coming but in the end everyone came agian. The posters and teh announcemnts helped the people stop calling names because it made people think about what they are doing to other people when they call them names. The way we would like to change our solution is for the fourth graders to carry this on through middle school, high school and until they die. Our group feels happy and pretty good about how we changed peoples lives because now they won't have to go through life getting picked on. Yes, we would do problem solving agian with a different topic.

Chapter 3

"Operation B.G." (be good)

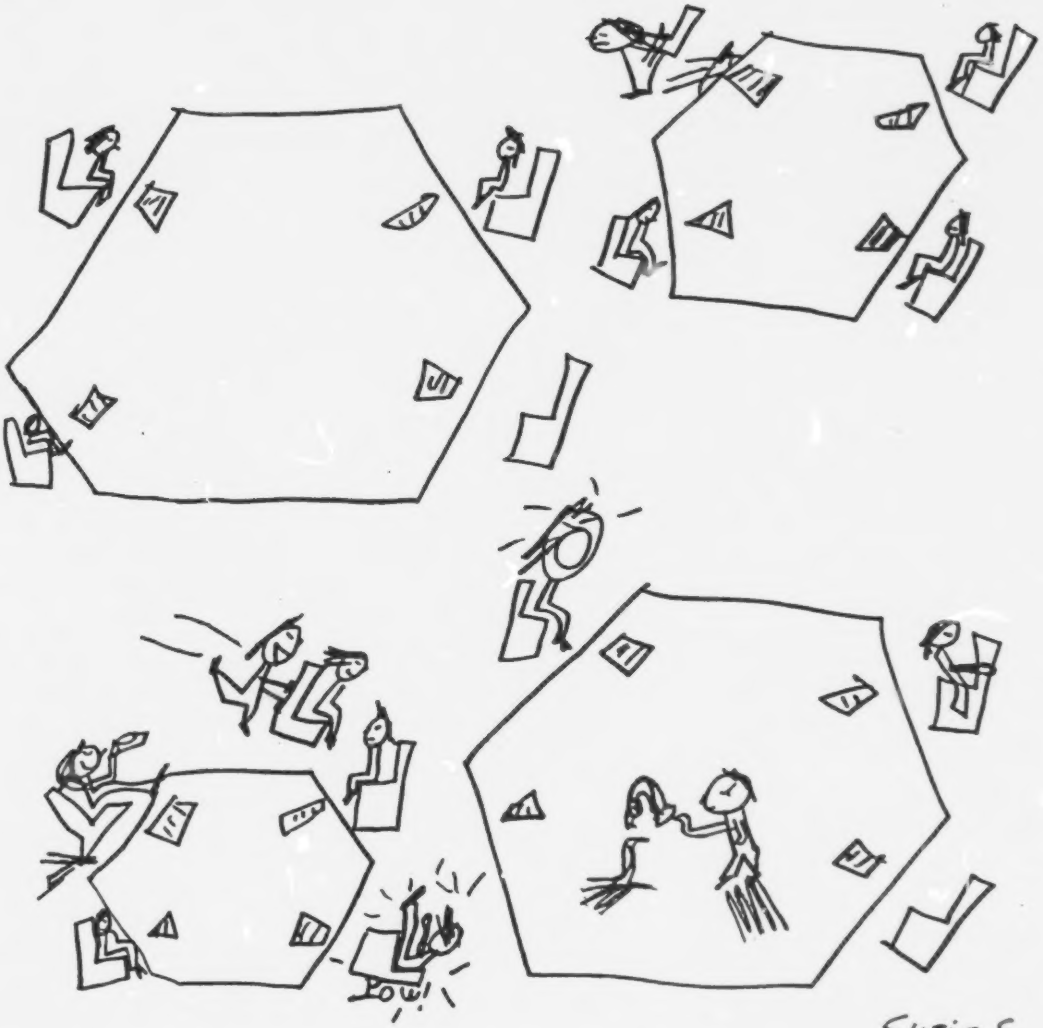
HA! HA!
Give it! I'll tell!
Pow!

What's Happening Here?

Hello, people. I am going to tell you how to get people to be good. We tried this thing on some people in our Classroom that don't behave in class. First you need to describe the people who have the problem. This is the kid that I am talking about: let's say his name is Arnold. He does stuff that he is not supposed to do, like disrupt the class. He makes funny noises and other stuff. He also makes people laugh when they are not supposed to.

What Can We Do?

We picked rewards so that kids who were bad would know to be good so they could get rewards. This problem, kids with behavior problems was more exciting and fun to solve.



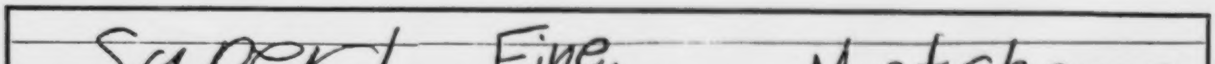
Suzie S.

What Would Really Work?

The solution we chose was the best one, that would work for our problem One reason we chose this if we got this solution we would like it ourselves.

Take Action!

We talked to our teacher, Miss Kelly, about participating in the solution. She would be in charge of handing out rewards. and keeping track of Arnold's behavior. We needed to get gum, paper, pencils, lollipops, pens, stencils, colored pencils, and crayons. We did not need to make anything besides what we needed to gat at the store: a list of compliments a grade chart to keep track of his behavior. In the afternoon we had to tell the teacher how we were going to do it. we told her when he would get rewards. To get them


Super!
Fine.
Must change Additude!

he had to be good from the beginning of the day to snacktime for the 1st reward and from snack to lunch for the 2nd reward. and from lunch to the end of the day lo get the grand prize.

1MON			
2TUES			
3WED			
4Thurs			
5FRI	☆☆☆ ☺ ☆☆	😐	☹
	Snack Time	Lunch	end of + day

To get all three rewards, he had to follow the school and class rules, he had to pay attention and not hert people physically and mentally.

How Did We Do?

Next you need to think of solutions that worked well. For example, our problem solving group picked rewards and praise. The solution worked for 2 days for all the kind that had problems but sad to only 1 person is acting better and Miss Kelly has a hand full of her. We think it did not work because people didn't care if they got a reward or not. It helped the teacher/ One thing that didn't work well was that we forgot to write on the grade sheet. they didn't know they did all day. So things to change to make this solution better would be filling out the grade. sheet.

I like doing this. Not just for the fact that you get rewards for doing it but for the fact that if your solutions work you will probably have feeling inside that you helped that person and that maybe without you he may have, when he was grown up, lose his job, then his house. His wife and kids may have to live in the street Then they may die. Now I don't think any of you would want that. I would do this again if I ever got the chance. If you decide to do this remember, you could save a life. I felt good because the person that you helped could teach someone in the future.

THE EFFECTS OF FULL INCLUSION ON REGULAR EDUCATION TEACHERS

Grant from

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FINAL REPORT
June 30, 1992

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Abstract

Including students with severe disabilities in regular classes is being advocated on the basis of benefits for children with and without disabilities, but there is little information on how it effects their teachers. This study used an ethnographic research methodology to identify effects of inclusion on regular class teachers in one elementary school. Teachers expressed and demonstrated overwhelmingly positive effects, with findings organized into eleven themes about teacher attitudes and practices. These findings are consistent with other emerging research.

As inclusion of students with severe disabilities in regular classes in neighborhood schools gains recognition as a best educational practice, research has examined the effects on both students with severe disabilities (Cole & Meyer, 1991; Halvorsen & Sailor, 1990) and students without disabilities (Vandercook et al., 1991). This research confirms that inclusion is beneficial for students with severe disabilities and, at worst, has no effect on students without disabilities. While special educators have become vocal advocates for inclusion, successfully educating children with severe disabilities in regular classes depends heavily upon collaboration with regular class teachers. Understandably, concerns have been raised about additional demands placed on these teachers, who have not been prepared to teach students with severe disabilities or to modify general education curricula and instructional practices to include them. Research indicates that both special and regular educators have concerns about how inclusion of students with severe disabilities will affect them (Semmel, Abernathy, Butera, & Lesar, 1991). While advocating inclusion of students with mild disabilities in regular classes, Jenkins, Pious, and Jewell (1990) advocated against inclusion of students with severe disabilities, stating, "It would not be fair to regular classroom teachers..." and, "The line needs to be drawn somewhere to protect teachers from unrealistic demands..." (p.485).

The purpose of this study was to identify the effects of integrating students with severe disabilities on regular education teachers in inclusive schools.

Method

Setting

Harry L. Johnson Elementary School (Harry L) in Johnson City, New York has been integrating students with severe disabilities into regular classes since 1986. Rather than immediately integrate all students then served in self-contained placements, a more gradual approach to integration was assumed: all kindergarten-age students would be placed in regular kindergarten classes and grow up with their peers. As of the 1991-92 school year, students with severe disabilities had been integrated into regular kindergarten classes for 5 years, first grade for 4 years, second grade for 3 years, third grade for 2 years, and fourth grade for the first time. As other students with severe disabilities moved into the school district, they also were placed in the grade appropriate to their age, the same class where they would be placed if not disabled. Although several students with disabilities were clustered in one kindergarten class during the first year of integration, later classes reflected the principle of natural proportions. Johnson City generally adheres to a neighborhood school philosophy, but the architectural barriers of the other elementary school have resulted in all children with physical disabilities attending Harry L School.

Harry L educates approximately 650 children, including 8 students considered to have severe disabilities, in grades K through 4. Another 5 students with severe disabilities have attended Harry L at various times since 1986. There are 24 regular class teachers, 4 support (special education) teachers, and 10 special education aides. All teachers work in teams, and specials (art, music, physical education) are scheduled so each team has joint planning time. School district philosophy promotes inclusion, a team approach, mastery learning, cooperative learning, and event driven curricula, all as means to ensure student success. Teachers at Harry L express commitment to these approaches.

Participants

Regular class teachers who had educated children with severe disabilities as integral members of their class for one or more years, and the special education teachers who supported them, were invited to participate. Three special education teachers and eight regular class teachers were identified. The school principal discussed the project with eligible teachers, and all agreed to participate. The PI sent a follow-up letter to describing the project to each teacher (see Appendix A). All 11 teachers participated in the interview portion of the study. Only 4 of the 8 regular class teachers had students with severe disabilities in their classes at the time of the study, however, so they were the only ones observed during the second part of the study.

Because eligible teachers were already participating in other research and systems change activities, the school principal introduced this project to the teachers and ascertained their interest prior to contact from the PI, so no one would feel pressured to participate. At the conclusion of the study, participants were each awarded a small honorarium as compensation for their time and effort. The PI consulted with the school principal to determine the form and timing of compensation; they informed teachers about the honorarium only after the study was concluded, to avoid influencing decisions about participation.

Procedure

Teachers' perceptions of effects of integrating students with severe disabilities were identified through a series of semi-structured interviews, and triangulated with results of a questionnaire, direct observation, and review of extant data. For purposes of this study, "students with severe disabilities" was defined as students performing at the moderate, severe, or profound levels of mental retardation, including students with multiple disabilities. Teachers were reminded that the population did not include students with severe emotional disturbance. To further define the population, teachers named 13 current and former students considered to have severe disabilities, as well as students who were not included in the population.

Initial interview. Ten teachers participated in a semi-structured interview on January 21, 1992. The interview was held during school hours and lasted approximately 2 hours. Another grant funded substitute teachers so participants could be released from their classes. The following questions served as a guide for the initial interview.

How long have children with severe disabilities been members of your class? How many children total?

How are students with severe disabilities included in your class?

Has including them in your class influenced you teaching? If so, how? (e.g., selection of materials, groupings, delivery of instruction, dealing with problem behavior, discussion of disabilities/different abilities/difference, accommodation for disabilities in your class)

Has inclusion influenced your approach to teamwork? If so, how? (e.g., type and frequency of meetings, strategies for program planning, relationship with other professionals, relationship with parents)

Do you now/did you previously participate in IEP development? Has inclusion of students with severe disabilities influenced your approach to IEPs/your role in IEP meetings?

Has inclusion influenced your view of yourself as a professional? If so, how? Has inclusion influenced your view of others? If so, how? Has inclusion influenced your view of children with disabilities? If so, how?

The interview was audiotaped and videotaped, and then transcribed. The videotape was used to identify speakers during transcription and to inform one teacher who missed the group interview. The principal investigator (PI) and a research assistant (RA) (a graduate student in special education) independently identified themes reflected in the interview, with a high level of agreement. Standard methods of content analysis (see e.g., Bogdan & Biklen, 1982) were used. On this basis, the PI established working titles and definitions for each theme.

Individual interviews. Approximately one month after the group interview, individual interviews were initiated. Prior to the individual interviews, teachers were provided with the questions listed above, so they could prepare to expand on the first interview. The individual interviews began with review of these questions, with opportunities to elaborate or clarify the individual's view on each question. Special education teachers were encouraged to answer questions in relation to both themselves and the regular class teachers with whom they worked. In addition, the PI asked the following questions that arose during analysis of the first interview:

Do support teachers plan with your team? Provide training? Do therapists plan with your team? Provide training? Do therapists have the same understanding of classroom expectations as other support personnel? Is training reciprocal?

What is meant by "developmentally appropriate practices" related to curriculum and materials? Was adoption something that would have happened anyway, without students with severe disabilities in your class? How does this differ for primary and elementary grades? Do elementary grade teachers use more manipulatives and creative activities (or just primary teachers)?

What is meant by "kid watching" for assessment?

How has your perspective about what is important changed (i.e., what is worth spending energy on)?

Was "success for all" a new attitude for you? If so, how did your attitude change?

How important is Collaborative Problem Solving in your approach? Do you have an expectation of inclusion? If so, did the success of CPS help create that expectation, or did CPS help actualize an expectation you already had?

Has your teaching style changed? If so, how? Did a flexible style allow you to include students with severe disabilities more easily, or did including them require you to be more flexible?

After having students with severe disabilities in your class, were there years when students with severe disabilities were not in your class? If so, were there influences that carried over or did not carry over to that year?

Much of the discussion has focused on professional issues. Has having students with severe disabilities in your class affected you on a personal level? If so, how?

Individual interviews were scheduled during work hours at the time that best suited each teacher: before students arrived in the morning, during the teacher's lunch break, or after students left in the afternoon. Each interview lasted from 30 to 60 minutes, depending upon the time available. Although two interviews with each teacher had been planned, the PI identified few new themes or questions and few teachers indicated they had more to say after the first individual interview. When teachers did have additional information, a second interview was conducted. Whether interviewed once or twice, all teachers were interviewed individually a total of 45 to 90 minutes. Individual interviews were audiotaped, transcribed, and the content analyzed using the themes identified in the first group interview.

Final group interview. Ten of the 11 teachers participated in a final group interview on April 27, 1992. The interview was held after school and lasted approximately one hour. Prior to the interview, participants were provided with a written report of preliminary results, which were reviewed during the interview. Thus the group interview served as a "member check," offering participants the opportunity to agree, disagree, clarify, and elaborate on findings to date. The PI also used the group forum to ask about areas where there seemed to be conflicting views. This interview was audiotaped, videotaped, transcribed, and analyzed.

Questionnaire. During the interviews, teachers often reported using specific strategies (e.g., cooperative learning groups) or being guided by certain philosophies. To clarify the extent of these strategies and beliefs, both for individual teachers and among the teachers as a group, the PI developed a two-page questionnaire (see Appendix B). The questionnaire was distributed during the final interview, completed anonymously, and collected by a teacher the following week. Questionnaires were returned by 8 teachers, including 6 classroom teachers, 1 support teacher, and 1 teacher who did not identify her/his role. Respondents represented all grades in the building. Results are compiled in Appendix B and discussed in relation to each theme.

Direct observation. The interviews and questionnaire identified teachers perceptions of how inclusion of students with severe disabilities had influenced them professionally. Supporting evidence for each theme was sought through direct observation of classroom instruction and team meetings. The PI developed a protocol to observe classroom instruction for evidence of the themes identified during interviews (see Appendix C). Using this protocol, the PI and GA conducted approximately 7 hours of observation on 10 occasions and the RA conducted approximately 4 hours of observation on 6 occasions, during the months of March, April, and May, 1992. Observations were made in 4 classrooms, consisting of 1 kindergarten, 2 first grades, and 1 fourth grade. The PI and RA conducted parts of 6 observations jointly to establish agreement both in use of the observation protocol and in recognition of classroom phenomena. The PI also observed one team meeting for each of 2 teams during the month of May. No specific protocol was used for these observations.

Additional classroom observations were scheduled but cancelled due to student absence or scheduling conflicts (e.g., student evaluation, pull-cut therapy session). Another conflict was in the Research Assistant's work load. Initial project planning was for the Research Assistant to conduct the majority of observations, with the PI performing reliability checks. The RA was also responsible for transcribing interviews, however, which took more time than expected and limited the RA's availability for direct observation. A third limiting factor was that, as noted previously, only 4 of the 8 regular class teachers eligible to participate in this study had students with severe disabilities on their class lists at the time of the study. While every effort was made to observe classrooms in a representative way, additional observations would have been desirable.

Extant data. Dr. Christine Salisbury, of SUNY-Binghamton, collected extensive data in the target classrooms during a three-year Collaborative Education Project, and made these data available for analysis. The school principal also agreed to make administrative records available as appropriate for corroboration.

Results

Teachers identified and provided examples of several ways they had been effected by including students with severe disabilities in their classes. Evidence of these effects was found through a variety of sources. It is important to note that all teachers reported some of the effects described below, but all teachers did not experience the same effects. The effects are discussed related to the following themes:

Teaching and Learning about Disabilities
Curriculum and Materials
Success for All
Collaborative Problem Solving
Expectation of Inclusion
Teams
Student Assessment and IEPs
Flexibility
Let It Go
Stress
Accountability

In reporting these findings, students have pseudonyms, while teachers are identified by the grade level they teach or support. Some regular class teachers have taught more than one grade during the period when students with severe disabilities were educated in inclusive classes. For example, the "kindergarten/fourth grade teacher" formerly taught kindergarten, and was teaching fourth grade at the time of these interviews. One teacher, the "second & third grade teacher" taught a combined class of second and third graders. The special educators are identified as support teachers for certain grades.

Teaching and Learning about Disabilities

Teachers reported learning a great deal about disabilities because they have these students in their classes. For the most part, information is provided incidentally during team planning meetings, in brief conversations sprinkled through the instructional day, and during incidental teacher modeling and observing. The teachers, in turn, provide ongoing education of all children about children with disabilities. The most directed education about children with disabilities occurs during kindergarten and first grade, modeling and observing. The teachers, in turn, provide ongoing education of all children about children with disabilities. The most directed education about children with disabilities occurs during kindergarten and first grade, when inclusion first occurs and the children lack knowledge.

A regular part of the kindergarten and first grade curriculum is for the support teacher to teach lessons about diversity, using books such as _Alike and Different_ and _Arnie and the New Kid_. These lessons are scheduled for early in the fall.

> First grade teacher: [The support teacher] would come in and do Circle of Friends with the kids, and then we would talk about ways that children were alike. We would talk about Sara and them, and how they all like to have friends and they all like snack time... and so does Sara.... And then we talked about differences. Some of us are tall, some of us are short, some of us are fat, some of us are thin.... And one thing that really helped a lot with both Mark and Sara was showing the children. At first they were very inquisitive about, "Why is Sara wearing that brace?" and [the support teacher] brought in the brace and tried it on some of the children and explained to the children why Sara wears it.

In the primary grades, children are also taught about how to interact with classmates with severe disabilities in the course of routine activities.

> Kindergarten teacher: I said, "Jeff, have you had a chance to be [Mary's] buddy yet?" and he said, "I don't know." I knew he hadn't. And he said, "What do I do?" So we went through what everyone else had been doing, but he wasn't too sure. He had to put his hand on Mary's back today because we let [the rabbit] out.... So Jeff had to get behind Mary because she jumps sometimes, goes backwards, and he had to put his hand on her. I think he kind of liked it. I'm anxious to see him tomorrow because he was one who was kind of holding back.

As children move into higher grades, information is provided more on an as needed basis. Teachers recalled three such incidents.

> Second grade teacher: My children were smothering Randy and John. They would not let them do things by themselves. And I finally had to sit down and have a class meeting with my class and say, "I think it's wonderful that you're helpful, and there are times when we're going to need you, but they need space, and you're not giving them any space.

> Second & third grade teacher: Kelly was in the bathroom today and she was screaming, and you could hear it in our room because we're next to the bathroom. So all my girls go trotting out and they're all standing in the bathroom with their hands over their ears. We didn't know who was in the stall, so I came in to check and make sure it wasn't somebody who was hurt.... [T]he aide poked her head out and said, "I'm in here with Kelly." And so then I had to take these girls in and explain to them what was going on because they hadn't been exposed to it.

> Second/fourth grade teacher: That led to a great discussion in my room because [Kelly] comes down my hall.... Somebody said, "Why does Kelly scream all the time?" And I said, "Well, what do you think about that?" "Well, why does Sara cry all the time?" "Why does Jamie hit all the time?" And it really led to a big discussion about the children.... Somebody said, "It's how they get their feelings out." Somebody asked, "Every time Sara cries, does it mean she's hurting or something's hurting her?" And somebody said, "Well, no. She was crying the other day when we took her out of the reading corner.... She was probably mad that we had to take her out and that that time had to end. Or if she's doing something she really likes, that's the only way she can relay her feelings." And then it got into some kids really want to be with Sara and some are hesitant, and it got to, "Why do you think that is?" And some of the kids said, "Well, sometimes she gets really stiff and her eyes go back." And it led into a seizure discussion.

Eventually the children start educating the adults, both influencing attitudes and modeling strategies. Examples were given during the interviews.

> Second grade teacher: The children seem so natural, especially by the time they're in second grade. They have developed relationships from kindergarten and first grade. And I think that the first year that the teacher has children with these kinds of needs in the room, that adult is coming with a certain amount of baggage, so to speak, and I think it's wonderful to watch the children, because it's so natural for them.... If you just kind of stand back and let it flow, you start getting rid of some of that baggage.

> Second & third grade teacher: Last year I had Mark and Sara and I was a first year teacher and I didn't really know how it was going to be just to have 24 kids in my room, let alone these two. And I remember thinking this was going to be beyond me even to do this. And [the support teacher] gave me the lead on this. He said, "Just let the kids go with it. Just watch the kids and see what they do." So for the first week, I really just stood back and watched the kids and they really taught me how I was supposed to be with these children. It wasn't anything that someone sat me down and said, "Now, this is what you do with them." The kids definitely tell you what you should do with them. They know, because they've been with them since kindergarten, and they know them and they know their little quirks, and what they like and don't like.

> First grade teacher: [An aide had taken one child to the bathroom and another child, waiting outside, started screaming.] And [the aide] said the screaming stopped all of a sudden. And she came out and there was [a child without disabilities] stroking Kelly's back and calming her down. It was totally natural.... See what the kids do with the situation. They handle it fine.

> Second/fourth grade teacher: A sub came in at the beginning of

> the year, and it was 9:30, and Stacy came up and said, "Sara's supposed to have her braces on right now." It's something you don't focus on every minute, but they know....

> Support teacher for second, third, & fourth grade: One of the nicest things for [the regular class teachers] as a big offshoot of inclusion is that they're having stuff they never had the chance to learn when they were in school. The kids are growing up learning sign language. The kids are growing up seeing things people used to call grotesque as commonplace.... "Yeah, he drools, but that's just what he does."... But it's just something that's accepted. Or the kids tell the teacher, "You know, we're out of Wipes. We've got to have Wipes."

Understanding the nature of a student's disability has enabled teachers to be more tolerant of some instructional and behavioral challenges. While teachers still see students with problem behavior as the greatest challenge to inclusion, teachers more often recognize problem behavior as an exaggerated form of typical behavior.

> First/fourth grade teacher: Over the last five years, since we've had children with special needs in the building, one thing that we've absolutely learned is that kids are kids are kids. And where some of these behaviors are a lot more exaggerated than they are in typical kids, nobody likes to come in off the playground.... And with Jeff, and John, and Randy, and with hearing impaired children, and emotionally disturbed children, I really wanted to see growth at the same rate. I wanted these disruptive behaviors to stop immediately and they don't. But then I had a couple other kids who are really as much or more of a problem last year who aren't classified. They were typical kids who weren't typical. And so I think one advantage we've had in the last five years is that we've begun to look at children as individuals. And when something is more exaggerated with a classified child, it has to be dealt with, and then sometimes when we have children who aren't classified who have some of these exaggerated behaviors, we have to problem solve that individually also.

All eight teachers who completed the questionnaire about inclusion reported that they teach about students with disabilities both as a formal part of the curriculum and incidentally, as the need arises. During classroom observations, discrete incidents of teaching and learning about disabilities were not observed. The ease with which regular class teachers and students without disabilities interacted with students with severe disabilities and responded to specific student needs was evident, however.

A third level effect was also discovered in one kindergarten and one fourth grade. Each class had a student teacher who, as an integral part of her practice teaching in elementary education, was learning about students with disabilities as well as the values that support inclusion, strategies that promote inclusion, and the outcomes that result from inclusion. One student teacher was eager to talk about how this experience affected her.

Fourth grade student teacher: Because I'm from the traditional ideas of the school, that [students with severe disabilities] were always in a separate class, I didn't really stop to think about what would happen if they weren't [in separate classes] anymore, ... and that's so sad when I think back on it. When I walked into that class, I was very shocked to see Sara sitting there.... At first I felt a lot of pity toward her, and I know now that's not the answer. It was so natural, that I didn't notice her 'til maybe ten minutes after I was there. And that amazed me. I thought, "I can't believe I didn't see this girl sitting there!" And when I got home, I thought, "How is this ever going to work in a classroom like this? You've got 21 students that are functioning at a certain level, and then you've got this other girl who is obviously not up to where these other kids are."...

The one thing that really stuck out in my mind is that it's not only wonderful for Sara to be there, but the other children, it teaches them so very much: cooperation, compassion. The first half of the semester, I thought they were being nice to her because she was disabled ... and they feel real sorry for this girl. But by the middle of the semester, I realized they didn't think about it like that. Only I did.... This little girl was one of them....

The kids kept telling me certain things that would excite Sara, and I thought ... they were just wanting to believe that. "If you wear the color red, that's really good, and these neon colors really excite her." And one day, I actually saw her follow the color red and smile, and there was a whole transformation for me.... I think of these poor kids in segregated classrooms.... An aide or a teacher can only do so much as far as inspiring this student, but the kids were with her, and they were doing things with her, they were talking to her, they were touching her. Sara had constant stimulation the entire day....

We did a tape of government sounds just for Sara [as part of a unit on government] and the kids were so into it, they felt like they were giving her something so special, and I looked at it as though we were giving Sara this special present. And [the cooperating teacher] said, "That's not true. You're giving her the education she deserves. You're not giving her anything above and beyond what she's supposed to have. It's not a gift. It's expected." ... So we totally revamped how we were going to give it to her ... so it was just part of our lesson.... We were doing [another project], and [some kids] kept saying, "Why don't we feature Sara, because that would be really nice?" And this little girl raised her hand and said, "But wait. I don't think that's a good idea. All of us are special in our own way." And I thought, "Wow!" ...

Just to be a neophyte teacher like that, just entering the system, it was culture shock, but by the end of the semester when I walked out of there, I was definitely an advocate, and there would be nothing to change my mind.... If I went into a classroom now where there was a student like Sara, I would not feel nervous, and that's a very important thing to me. I walked in there [the first day] and honestly, when I saw Sara I started to have tears in my eyes. I said, "This poor little girl." And yet, when I left, I thought she was the happiest thing I had ever seen. Even the little kids that are sometimes little pains in the

> neck, they were so tender with her.... And I saw the innocence of children come out with her, and that was something that brought tears to my eyes. But they were certainly different tears from the first day.

Curriculum and Materials

During the past five years, teachers at Harry L have studied and adopted "developmentally appropriate practices" as advocated by National Association for Education of the Young Child (Bredekamp, 1986). They have moved from an emphasis on paper and pencil tasks to more manipulatives and creative methods, not just in the primary grades but throughout the elementary years. In the inclusion questionnaire, four teachers reported that they would have moved in the direction of developmentally appropriate practice, whether or not they had students with severe disabilities in their classes. The other four respondents, however, reported that having students with severe disabilities in their classes forced them to make changes in their curriculum that benefitted all students. During the interviews, teachers described their thinking.

> First grade teacher A: I think I used the children with special needs as part of an excuse to do things I wanted to in the classroom, but before I didn't feel I had legitimate reasons. Like where we do stations and the kids rotate from one to another. I always felt like an art table or a clay table was kind of frivolous, that I shouldn't do that more than once or twice a week, because what are the kids really getting out of it? But once I started working with [two students with disabilities who] still struggle a bit with first grade curriculum, I thought, "Well if we're reading about birds and doing math about birds, they can make clay birds. Everybody can be successful doing that."... And then after learning about more developmentally appropriate practices for first graders, I realized I don't need an excuse.... All kids can benefit from it.

> First grade teacher B: This time I was using real coins. Years ago I would have used cardboard coins that came in the book. I would have had all the kids with their little envelopes of cardboard coins and going crazy because they were dropping them or couldn't find the right ones. I also would probably have used the picture coins on a ditto sheet, and had the kids adding up dimes and nickels using picture coins, which I even have a hard time telling which is a dime and which is a penny in the pictures.

> Support teacher for kindergarten & first grade: I think now, when I first walked into kindergarten, what a nightmare. There were three workbooks in kindergarten that they had to do. I mean everyday these little kids were doing paper and pencil tasks.... These activities didn't lend themselves very easily to adapt so everyone could be included. And little by little, it was like, "Well, let's not order that for next year. Instead of the math book, let's do more manipulatives. Let's get rid of the language arts workbook."
>
> Kindergarten/first grade teacher: I was accountable for three workbooks for these little kindergarten kids. And I remember [a

> university faculty member] coming over and saying, "Oh my," and I said, "We have to do these. This is what I'm supposed to be doing." And it really made us look at developmentally appropriate practices, and that's when all this stuff started. And I kept saying, "I can't do this. I can't do these workbooks with these kids. What are we going to do?" ... We started getting information on developmentally appropriate practices, from NAEYC, and all those kinds of things, because it was wrong [to do the workbooks]. And probably we would have kept doing it if we hadn't had children with special needs.
>
> First grade teacher: When I started working with [students with disabilities] I felt like everything went pretty smoothly, because we had already started getting into developmentally appropriate practices and doing stations, not having a teacher stand in front of the room.
>
> Support teacher for kindergarten & first grade: And if one child needs manipulatives, putting them in the middle of the table and saying, "Anybody who needs them can use them," and not pointing out that he really needs to use them.

An effort was made to corroborate this reported shift by analyzing materials orders for relationships between placement of students with severe disabilities with a teacher and the types of materials the teacher ordered. Unfortunately, school records do not indicate which teacher ordered which materials, so correlations could not be determined.

One special education teacher also noted that recognition of developmentally appropriate practices had positively influenced her view of an appropriate curriculum for students with severe disabilities.

> Support teacher for kindergarten & first grade: When we first started back in 87, I really strongly thought that nothing should be taught that wasn't functional. We were in a classroom with other five and six year olds, and I would look at the activities they were doing, and if I didn't believe they would have an outcome for future environments, I would say, "No, we can't participate in that."... Yes they need to be taught functional skills, but that social aspect needed to be included, and ... it's OK for a five year old child to be a five year old child.

When students with severe disabilities could not successfully participate in regular class activities, teachers reported making individualized curriculum adaptations. Class observations confirmed the following general approach to curriculum adaptation:

> Same task, easier step: While other first graders worked on writing numeral to 100, Todd worked on writing numerals to 10.
>
> Same task, adapted materials: While other first graders made cards for a friend, Ben wrote his greeting on the computer.
>
> Same activity, different task: While other first graders sang a song, Kelly was taught to sit with the group, wear headphones to hear a

taped song, and hold her hands on the speaker of the tape recorder. While other fourth graders reviewed their math homework, one student helped Sara hold a neon crayon and write answers on the page. When the friend read the paper, she shined a red flashlight on the part she was reading. Sara's goal related to head control, grasp, and vision.

Parallel activity: While other first graders worked at stations, Kelly was offered a variety of materials and activities in the area of each station. At one point she left the classroom, carrying her bag, for a trip to the bathroom and then to the nurse's office for medication. This addressed needs related to health, toileting, and travel in the school, and respected her need to change activity more frequently than other students.

While adapting curriculum for students with severe disabilities was essential for their successful inclusion, teachers reported that they now provide many ways for all children to display knowledge, rather than one activity. They look at children more as individuals and allow for individual learning styles.

Support teacher for second, third, & fourth grade: We had oranges and we drew the equator on them, and we put the North and South Pole in with toothpicks. And some of that was really good for Marshall; you know his hand strength was really poor. And just doing all those activities was fun for him, and he was involved with the rest of the kids, and they were learning something at another level too.

Second/fourth grade teacher: I used to have this notion that manipulatives were just for K-1-2 or early primary. The fourth graders love to work hands-on more than anything.... I can't remember the last time I offered just one way to assess, or one way of guided practice, or one way of independent practice. They always have a choice. We just did a culminating activity today. Some of them are doing board games; some of them are doing dioramas; some of them are doing a story map. You know, there are many different learners. You have to offer a variety of ways.

In response to the questionnaire on inclusion, all eight teachers reported that they usually or frequently planned lessons for their classes so all students can use manipulatives, so lessons reach students with varied learning styles, so students can demonstrate knowledge in varied ways, so students of varied abilities can participate and succeed, with cooperative goal structures, and with mixed ability groupings. While the teachers reported planning lessons with individualistic goal structures frequently or occasionally, they reported occasionally, rarely, or never planning lessons with competitive goal structures or same ability groupings. These practices, evident during classroom observations, appear to be both a necessary condition for and an effect of successful efforts to include students with severe disabilities in regular class activities.

Success for All

The school district has the stated belief that "All children can and will learn well." When asked directly about this belief, all teachers endorsed it quite emphatically. In other discussions, however, teachers conceded that they hadn't always "walked the talk" and that having students with severe disabilities in their classes helped bring deeper meaning to their belief.

> First/fourth grade teacher: Seven years ago when I was teaching on a 4-5 team at Harry L, I had some learning disabled children in my class.... When those children were in my room, they had to do what everyone else had. We were out for mastery and everyone had to fit the same mold. And even though we said we looked at the children as individuals, I don't think we were until we got into the developmentally appropriate practices, and we started thinking together and we started letting synergism happen. We started bringing the OT and the PT and the speech teacher into the classroom and everybody started to work collaboratively, and now all of a sudden we're seeing a lot in children other than the classified children that we never saw before.

> First grade teacher: [Having students with severe disabilities in the class] has made me much more comfortable with altering the expectations for children as needed, and much more comfortable with the fact that children learn at different rates and there are different learning styles.... I remember feeling very frustrated about it. But now I'm very comfortable with, [a child with learning disabilities] might not learn to read this year, but he will certainly learn to read sometime.... I think it took me a while to realize what Jill's success would be.... I felt like [Jill] would make progress, but it took me a while to realize the adaptations were fine, that it was OK.... When we were playing a game of number bingo, she could be right with us doing it. She did what her peers were doing with just modified expectations.... I always realized she would be successful in some way, but being able to include her and measure her success and seeing it on a daily basis was something I learned from having her in my room.

With their commitment to success, teachers were concerned about what would be expected of the students with severe disabilities when placed in regular classes.

> First/fourth grade teacher: One of the things we talked about in the beginning years ago was that we didn't want a watered down special ed program... and I kept wondering if that's what we were producing in some cases. [The support teacher] helped me with that a lot. But as we kept going and finding different ways for kids to exhibit learning, what we found was that our standards of performance were not being watered down. We were doing the branching out and taking the kids to higher levels that we should have been doing all along.

As discussed under Curriculum and Materials, having children with severe disabilities in their classrooms moved teachers to re-examine their approach. As they redesigned curriculum, materials, and methods for the students with severe disabilities, they also saw how others could be more successful.

> First grade teacher: [Planning activities appropriate for students with severe disabilities] legitimized my wanting to do things that seemed for fun and less academic. You know, clay is good for fine motor, and Ben or Kelly might need fine motor, so I would use them as an excuse. But then, as I pulled out activities like that, I really realized that all kids need activities like that on a daily basis, not just once a week, on a special Friday.

> Support teacher for second, third, & fourth grade: [A third grade teacher] wasn't that happy with what the kids were learning ... so she brought it up at the team meeting and she decided to go with activity centers and she planned two of them specifically for kids who weren't really being successful, not all kids who were classified. And Patrick and Joey were two kids in one group she pointed out, and they had manipulatives and they laid out a crocodile on the ground and measured it. And they were doing things that were meaningful, hands on, that Patrick and Joey could stay with.... Or even with kids who have a hard time structuring their thoughts, to put them in some kind of order to tell a story, just having them draw a picture instead of using letters. Just go through the pictures to tell the story; draw it out. If you can retell it, that's part of storytelling, isn't it? So having them go to that point and then having them work on taking the picture now to words and sentences and chunking them up.

Teachers now recognize and look for individual rates of progress and learning styles for all their students, as reflected in descriptions of two students without identified disabilities.

> Kindergarten teacher: He's always moving, always moving. He can't sit still. I can't ask him to sit still. He can go in the back and move around. He takes in everything like a sponge. He may be moving, but what I'm reading or what he's doing, he's absorbing. And the things he comes back with are absolutely amazing. Whereas, if I said "Sit," I think he'd be sitting there just thinking, "She's making me sit here."... But when he's allowed the freedom to move about ... [he's] taking it all in.

> First grade teacher: I gave them a lot of different coins and had them add them up for me. And I had one little child, while she was waiting for me to get to her, she was patterning with them: like dime-nickel-dime-nickel-dime. And she was very proud of it. Previously I think I would have been just aghast. "You're not supposed to be patterning; you're supposed to be adding." Whereas now, I looked at that child and realized that developmentally, that's where she was, and so I encouraged her to expand on her patterns and made a note that I would get back to her later.... And it was wonderful. She looked at me and said, "I'm really smart," and I said, "Yes you are."

Teachers at Harry L put more emphasis on cooperative goal structures than on competition. Questionnaire respondents indicated that they usually or frequently use cooperative goal structures and mixed ability groupings and only occasionally or never use competitive goal structures and same ability groupings. Although these strategies were used and advocated at Harry L prior to inclusion of students with severe disabilities, inclusion seems to have strengthened teachers convictions about and broadened their applications of heterogeneous cooperative groups. Teachers have also found that, when including students with disabilities, ensuring success for all students means being intentional about group composition.

> Second & third grade teacher: You have to match up more carefully. You can't just give a random match-up and say, "OK go sit where you want to sit in these groups." If you put students with Mark and Sara who aren't receptive to Mark and Sara, they're both going to lose in the group because [the children without disabilities] are not going to have a partner who will work with them and Mark and Sara are not going to have someone who will be more receptive to them.

> First/fourth grade teacher: What we've found is that in some cases it's a lot better to leave the children with someone, with a partner that we know they can work with, rather than give them an additional difficulty to work through. So with children with special needs, we talk to them privately and ask sometimes if this is warranted, "Who would you like to work with? Would you like to sit at this table? I think you would be really good with...."

Teachers reported that they have moved from "mainstreaming" (having children with disabilities in the class without supports or adaptations) to "inclusion" and integration (ensuring participation and success by providing appropriate programmatic and social supports).

> Second/fourth grade teacher: Even though Mark and Sara didn't look like typical second graders, I really had set in my mind in the beginning, "OK, they have to learn their addition facts in second grade. They have to be reading on a second grade level by the time they get out of here." I really had that in the back of my head. And I think that's a big thing for teachers. They really feel like they're responsible for getting through the curriculum no matter what type of disability the child has.... [The support teacher explained,] "Well, Sara's goal is to respond to the color red, because she really likes red, and someday maybe we can get her to use a communication system with her eyes responding to a color." Then you start to understand. But it made me become more flexible with knowing that maybe I will partly be responsible for some of the goals that she needs to meet, but she's not going to read and that's not her primary goal.

Later this teacher's fourth grade class was observed during a lesson about customs of Iroquois Indians. After an introductory discussion, students generated ideas in cooperative groups, and then brought their ideas back to a large group discussion. Sara, who has severe disabilities, including blindness and severe developmental delay, is a regular member of a cooperative group. While all the groups listed their ideas on paper, Sara's group wrote on a red transparency on a backlit easel positioned where Sara could see it. Sara's group members periodically checked to see if she was looking, spoke to her to regain her attention, and repositioned her head if necessary.

In the past, concerns had been raised about whether attention to the needs of students with severe disabilities might take away from meeting the needs of other students. In contrast, teachers expressed commitment to the belief that success for students with severe disabilities increased success for others. One of the desired exit behaviors for students in the Johnson City Central School District is concern for others, and inclusion of students with severe disabilities at Harry L is clearly achieving that outcome. On a more pragmatic level, however, teachers consistently expressed belief that their efforts to include students with severe disabilities was helping them become better teachers for all students.

> First grade teacher: You know, I had so much support. And extra personnel to help out, that you're child actually gains more. And not to mention gaining more in the area of concern for others, ... but even just with the academics. The typical children gain so much because there's an extra pair of hands in the room.

> First/fourth grade teacher: Because of the way the teams operate, teams with children with special needs have the teacher with special ed expertise. So we look ahead at what we're going to be teaching and take into account the IEP and the needs of those children along with everybody else. So just as we look ahead and see what we're going to do to meet the needs of other kids, that's the case here too.... In no case, ever, is that a detriment to other children in the class. What we're finding is that when we use techniques that have been traditionally used in special ed, everybody is learning better. And that is not a problem; that's an asset.

Collaborative Problem Solving

Another desired exit behavior for Johnson City students is problem solving. Several teachers at Harry L participated in a Collaborative Education Project in which they learned "collaborative problem solving," a formal problem solving process applied to enhance successful integration of students with severe disabilities in regular education contexts (Salisbury & Palombaro, 1991). In this process, children without disabilities become partners with adults to adapt activities, and often take the lead and facilitate problem solving. Although not all teachers had been formally trained in the formal process, they all expressed enthusiasm for having the students help devise strategies for inclusion, both because of the quality of their solutions and because of the learning that occurs in the process.

> Second grade teacher: I find that the children have better ideas than I do. And they're more natural. I might get the ideas, but they become very phoney and set up, whereas kids are very honest and open.

> Kindergarten teacher: They have some really good ideas, some

> really creative ideas. And sometimes we think of things that would make it easier for us, or make it easier for the aides.... But the children think of more creative ways that they think would be fun, or that they think would be interesting.

> Support teacher for second, third, & fourth grade: (Referring to a game devised for a student with severe disabilities) You let the kids try and go through problem solving, but also fail. Fail is a bad word maybe, but have something that doesn't work, redo it, go back and do it again.... But you can, as an adult, be tempted to say, "Oh no, that's not going to work." And you can stop it right there and let it go no further.... But letting kids go through that process and not having things work the first time is really important.... [The game] didn't work. It all flopped. And Michael built it with [the student with severe disabilities]. Tape and rubber bands and pencils.... You know the physics of tape, and weight, and you know force. And the kids don't know those properties, and it's good that they don't. And things are going to fall down with a certain weight, but let it fall. Because then they can just find out how to hold it up better next time.

The teachers also found that involving the class in problem solving was natural, because often it was the students who first saw the need, who had vested interests in solutions, and who were influential in implementing solutions.

> Second & third grade teacher: The kids are the ones who helped me problem solve how we were going to get Mark and Sara in on this.... And with Mark and Sara there in their day-to-day life since kindergarten, it's just something that happens naturally with them. If I had to sit down and think, "How am I going to include Mark and Sara in this?" I would rack my brain and be there for hours and probably come up with nothing. But these kids, you don't even have to present it to them. You don't even have to say, "How can we include Mark and Sara?" They're already on to it and moved past it.

> First/fourth grade teacher: Randy had a penchant for taking off his shoe and throwing it and hitting somebody in the back of the head. That was one of his favorite things to do, so that was the topic of several problem solving sessions.... And then, because they're involved in the process, then they're involved in the results, and they carry through with what they say.

Collaborative problems solving extended beyond the school to field trips and other events, such as Field Days, an annual outdoor recreational and competitive event.

> First/fourth grade teacher: We had Jeff participating in everything else, but with his wheelchair, I wondered how we were going to get him around the grassy area. And [the support teacher] was tied up with someone else.... So I had another child with me. We trundled Jeff around and the kids were absolutely thrilled. At first I said, "I

> don't know if Jeff is going to do this." And the kids were all standing there with me and they said, "Well he has to. He's part of the class." It was just understood. So I said, "OK, how are we going to do it?" And they said, "We'll help."

During classroom observations, specific instances of collaborative problem solving were not observed. During the three-year Collaborative Education Project, however, numerous instances of collaborative problem solving were recorded, addressing issues related to students' physical, social, and academic needs, as well as staff needs related to logistics (Salisbury & Palombaro, 1991). Salisbury and Palombaro cited the following examples, which illustrate how students became peer advocates.

> In the cafeteria, a child in a wheelchair was sitting at a different table from his classmates because, when sitting together, cafeteria monitors were concerned that his wheelchair blocked aisles. Classmates generated the solution that they would rearrange tables and assume responsibility for putting them back when lunch was over.
>
> A child with severe disabilities was not an active participant in playground activities, such as using the slide. Peers determined that the child should have a helmet and then they would take the child down the slide.
>
> When a class was making Mother's Day cards, a teacher's aide was concerned about how a student who cannot hear or talk could let her mother know how important she is. Peers suggested that they help her make a book and make choices to say why her mother is important. They also determined that the student should chose which group she wanted to work with.
>
> A child with severe disabilities arrived at school on an early bus, before an aide arrived to take her to the playground. While other children walked around the school to the playground, the bus driver called the child's teacher, creating routine interruptions. Students and faculty devised a plan for children from the bus, including the student's brother, to walk the child to the playground. The bus driver called playground monitors by walkie talkie to let them know the child was off the bus and going to the playground.

Teachers reported that the collaborative problem solving strategy helped them operationalize their belief that all children, including those with the most severe disabilities, could be successful in regular education settings.

Expectation of Inclusion

Over the five years that students with severe disabilities have been educated at Harry L, teachers have developed increasing expectations that all children will participate in regular class activities. This belief was not strong at the outset, however.

> Support teacher for kindergarten & first grade: I think some

> people really needed to see it before they could believe it. Reading research, reading articles, for some people that was enough to say, "Good. Let's go, let's try it." Some people on our team said, "I've read all that and I'll do it, but I don't know if I believe. I want to see it in action. I need to see it happening, be successful, before I'm going to change my belief system."
>
> Second grade teacher: I have to tell you that when they first started, and I saw what they could do, I thought, "This will never work," because they aren't doing anything my children are doing. And then I started our mornings with big books, and they would sit on the floor with the children and Randy got very involved. He loved to look at the pictures so he was very quiet.... Then one day they were in my class for a math lesson ... and I said, "Is there anyone who would like to come to the board now?" And Randy's hand went up, so [the support teacher] went up to the board with him and said, "OK, now this is what we're going to do." And he loved it.... Up to that point I thought they would be sitting in the room but they wouldn't be doing anything because they can't do anything.... And [the support teacher] was saying, " Well now how can we get them involved in the group? What could we do? What could they do?" So then we looked at what my day looked like and how they could be included.

As adults developed and modelled this expectation, so did students.

> First grade teacher: One time we went to [a nature center] and of course we had Mark and Sara with us, and everyone in the whole class had a chance to be in a pond and they all got to be different creatures in a pond, and they were talking about being predators and stuff like that. And Mark and Sara were not involved because the person who was doing the presentation did not think to include them. And I remember the children coming to me one after another and saying, "Can't Mark play? Can't Sara play?"... And when we got back [to school], it was just top on their minds. That's all they wanted to talk about. They were hurt because [Mark and Sara] were left out.
>
> Second/fourth grade teacher: We're planning a really big trip to Albany.... You leave at 6 in the morning and come home at 6 at night, and [the team asked], "Would this benefit Sara?"... And I said, "It is a really long day, but we better let Sara's mom make that decision as to what she wants to do.... But I'm telling you right now, you tell that class that she's not going, and they're going to want to know why. They're going to want to know what the problem is." And if I said, "We just don't know how much Sara would get out of it," they'd ask, "What do you mean?"

Factors that seem to promote this expectation include personal beliefs, a school philosophy that the class is a family, availability of supports to make inclusion successful (e.g., planning time, assistance from professionals and paraprofessionals), and greater facility in using strategies to achieve inclusion (e.g., collaborative problem solving). While teachers express a strong commitment to inclusion, it is clear that degree of inclusion is a sensitive topic. Teachers do not want to be pushed into an all-or-nothing position; they want to continue to use judgement about when and how students should be included or removed from activities.

> Kindergarten/first grade teacher: They should be there as much as they possibly can. And if they can't be there, it's either a medical problem, a problem where they're really disrupting the classroom and learning can't take place, or that maybe things that we're doing in the classroom are not totally appropriate.... I'm more comfortable with that than I was.... I thought, "If they can't be in here then it's my fault." Now I've seen, through the years ... there are times when they can't be there, when it's more appropriate for them to be in a different place....
>
> Support teacher for kindergarten & first grade: And I also think learning takes place in different environments. For instance, Kelly really needs to use the bathroom because that's the bathroom she's going to be using in second and third and fourth grade, and learning to use the drinking fountain. She needs to be taken out of the room at times, so we made going to the bathroom and getting a drink all one activity.... That all children will be included, yes, but I still feel there is partial participation, and there are times when something may be going on in the classroom, that I don't want to water it down, or I don't want to artificially make it fit.... When they're doing reading, having Kelly sit and self-stim with the pages of the book, just to say she's sitting.... We can't include kids just to say they were being included and sacrifice good teaching and their goals.

Part of the discomfort seems related to the varying ways teachers define inclusion. Some teachers seem to believe that adapting expectations, curriculum, and materials is not consistent with inclusion.

> First grade teacher: I can't see Kelly participating in any of the activities we do in here. It's mostly something that's different from what we do. Which isn't to say I don't think she belongs in the classroom, but I don't see force fitting her into activities that most six-year-olds are doing.

During two observations in Kelly's first grade classroom, she was seen both fully included and removed from the classroom. During an opening circle, children sang and signed songs. Sitting in the circle and wearing headphones, Kelly was prompted to turn on a tape recorder and to hold the recorder on her lap with her hands on the speaker. Although she was restless and required continual guidance, she appeared to be part of the group and not disruptive. After about 15 minutes, Kelly left the classroom (to go to the bathroom and nurse), which everyone seemed to take in stride. Later, students worked at four stations. Three involved academic tasks; one had a variety of toys for fine motor activities. Kelly was assisted to use several toys at the last station, but seemed to reject toys in quick succession. After a few minutes, she was taken to work in the hall, where she was encouraged to participate in gross motor activities. Kelly's teachers reported that earlier in the year they had insisted Kelly work with the class, but she screamed continually, which interfered with both Kelly's and the other students' education. During this observation, it appeared that Kelly's team worked to include her in meaningful ways while respecting her activity tolerance, respecting the needs of other students in the class, and addressing Kelly's non-academic needs.

Other teachers also struggle with the appropriate inclusion of students with severe disabilities who are more active and disruptive.

> Second grade teacher: We went through a period where Randy did a lot of screaming. And the kids did much better than I did. And there were times when I would say, "I think Randy needs to go out of the room," because I wanted him to know that that was not acceptable behavior.... But I really wanted them in the room as much as possible.... And there were times when it wasn't appropriate.
>
> Support teacher for second, third, & fourth grade: I think too though that it becomes much more reinforcing for the child to be in the classroom, even if it means it's reinforcing because they disrupt the classroom.... [Jamie] disrupted the class and there was a lot of aggression, and noise and adults talking to kids.... But a consequence for that was that she had to leave the room. And that happened less and less and it became very apparent that she had a need to be in the room.... It got very old being out of the class.... It took a very long time, but it was effective.

In some situations, teachers may have set unrealistic expectations.

> First/fourth grade teacher: Before [inclusion of students with severe disabilities] I knew that in some cases I needed to pull any child aside and deal with a situation privately, or a need privately. what I found myself doing with children with special needs was not what I was doing with other kids. I was trying to include them absolutely across the board in everything. It was almost like I was afraid to pull them out for anything ... and that's not smart.

In most situations, however, teachers seem to have set a goal that they have not yet achieved. Several teachers expressed feelings that they needed to do better with these students; it was their responsibility to find ways to include the students more fully and more successfully. In responses to the inclusion questionnaire, four teachers agreed with the following statement:

> Based on my experience, I expect that children with severe disabilities who are more active and disruptive will participate in fewer inclusive activities and more parallel activities than children with multiple disabilities.

Three teachers disagreed with this statement, but two of the three added comments about the challenges of including these students. Seven out of eight teachers reported that students with severe disabilities were included appropriately most of the day during regular activities, with or without adaptations. One of the seven reported including one student most of the day, but two others little of the day; another teacher reported including students with severe disabilities some of the day. In interviews, teachers noted that the extent and quality of inclusion increased each year, as the teachers' competence increased.

In contrast, teachers seem to expect or accept that some therapies must be parallel.

> Second & third grade teacher: I think it's different with different needs. Like with Mark and Sara, it's not like they were being disruptive in class and you had to remove them for that reason. I think with them it was harder to get them in there all the time because of OT, PT, and everything else.

> First grade teacher: I'll never forget one year when [a child with mild disabilities] had to do something with either OT or PT, and it was hammering nails into a board. And they're off in the back of the room hammering nails into a piece of wood while I'm teaching a lesson up in the front of the room. And I realized that there are times when it's appropriate for them to be removed from the room.

In interviews, teachers indicated it was common practice for therapists to work in the classrooms, and spoke of the benefits of that practice. During this study, therapists were sometimes observed working with students in the classroom, but often on an activity parallel with the activity of the rest of the class. During other observations, students with severe disabilities were not found with their class because they went for therapy. Questionnaires asked teachers about the extent that students with severe disabilities were included in regular class activities while receiving therapy services. Four teachers reported that students were included most of the time during speech therapy, and that was appropriate, but the other four respondents reported students included some or little of the time for speech therapy, which was too little. For occupational therapy, four teachers reported students included most of the time, four reported some of the time; six said the amount of inclusion was appropriate while one said it was too little, and one didn't respond. For physical therapy, seven teachers reported students included some of the time, one reported little, but five said this amount of inclusion was appropriate while only one said it was too little. (Two did not respond.) In contrast, seven teachers reported including students with severe disabilities most of the day during regular activities.

This range of responses might be explained in a variety of ways. Perhaps teachers are not as clear about how and when therapists can work with them as they are about support teachers. Perhaps there is a mystique about therapy services that deters teachers from raising the same questions about therapy services as they do about education. Interviews suggested that it was the teachers with expertise in special education who initially asked the questions or made the suggestions that resulted in planning progressively more inclusive educational activities. If this was the case, there may be an unspoken expectation that the therapists have, will, or must lead integration of their services. When asked whether she thought it was necessary to have one student hammering nails as therapy separate from the rest of the class, the teacher quoted earlier suggested viable alternatives to pull-out therapy.

> First grade teacher: I think there were other things that he could be doing. Or with the age group I'm teaching, if [the student with disabilities] is hammering nails, I bet all the kids would like to do it. So I think that perhaps if there had been better planning, that would be something that we could incorporate into a lesson.... Which makes it nicer for [the student with disabilities] too because then he's not singled out.

As will be discussed in Teams, the therapists have had few opportunities to participate in planning meetings, and therefore the teams have not had the same mechanism to achieve inclusion of therapy services.

Teams

Teams now include regular class teachers, a support (special education) teacher, an occupational therapist, a physical therapist, and a speech therapist. The expanded team benefits all children, not just those with severe disabilities.

> Kindergarten teacher: Since I started in this district in 1974, we've always teamed.... It is a definite structure that is part of our school district. What has changed is the people [who are part of the team].

> Kindergarten/first grade teacher: We've always had teams as long as I've worked here. But including another person in your team, the special ed teacher, making sure she's always included in every decision that you make, that she has a lot of input, we seem to meet more frequently because she has her concerns too, which are valid.... I think inclusion of that teacher is extremely important in every team meeting that we have, if possible.

Teachers have learned that techniques used in special education can be applied to regular education, and vice versa.

> Support teacher for second & third grade: There's a real desire to make plans that include everybody ... looking not only at what can we do to the general curriculum to make it meaningful for the special needs children, but also what are they doing that we might be able to make meaningful for the other kids.... As they're learning cursive, maybe rolling play-dough for example, which might be following directions with objects and a fine motor activity ... and it's still materials that they're really attracted to developmentally.

> First/fourth grade teacher: Various people working with the child with special needs come into the classroom if at all possible. Sometimes they'll work with other children too. You've got to get the child they're working directly with in a task and then move around the group, or if we've arranged it ahead of time, we would have the entire class doing a certain thing that the needed task could be embedded in.

The support teacher plans in collaboration with the team and then provides training if needed. When planning, the team keeps individual objectives in mind. Although there are often last minute changes, teachers have become more organized in their advance planning, since support teachers and therapists need this information to plan for students with severe disabilities.

> First grade teacher: I think when you have a handicapped child in your room, you need to be a little more intentional and you need to have a little more of a long-term plan.... Not to say that I'm not as flexible, and not to say that I don't go with a teachable moment. Certainly we do that. But I think we're a little bit more intentional and we plan ahead a little bit more, because we need to sit down with our entire team, including this person who's working with the handicapped child who has several other classrooms to serve as well.

> Second & third grade teacher: If I know what's coming up in the next week or the next two weeks, I'll give [the support teacher] a copy of what's going on, ... and I'll ask her what can we do together.... But then we need more time off by ourselves to do planning for [students with disabilities]. So during our team time, the big team time, it's not hitting these kids directly. It's whole class.

> Support teacher for second, third & fourth grade: There's so much going on with the team itself, that for that team time, it's almost an impossible task to do it all then and there in that 40 minutes or half hour.

Special education teachers are no longer viewed as "magicians," rather they are resources and co-teachers. Regular and support teachers share ownership for all students.

> Kindergarten/first grade teacher: I thought [the support teacher] could take the special ed kids in the afternoon, while they were all self-contained, and wave her magic wand, and they were going to be all fixed in the afternoon. Until I walked in there one afternoon and saw this and thought, "We can do this in the regular classroom just as well as they can do this in a self-contained classroom."

> First/fourth grade teacher: When [support teachers] first came, we looked on them as experts in what we wanted to do at Harry L, and they weren't. They weren't and we weren't. We found that out pretty quickly, and it emphasized the need to think and plan together.... We found out very quickly that if we planned together, we could figure out solutions for everything.

> Support teacher for second, third, & fourth grade: If I can think fast and [come up with a successful strategy], maybe the [classroom] teacher can do that too.... Eventually I can see [a classroom teacher] thinking of [a student with disabilities] while she thinks of the class. But, you know, she doesn't have to call me to get [materials adapted for the student with disabilities]. She has ideas that she does now.

First grade teacher: With Kelly, I really thought we needed more things in the classroom. Part of the reason she was yelling and screaming was she wasn't finding this a very nice place to be. So I talked with [the support teacher] about it, and brought in a trampoline. It was for the whole class, but really Kelly was the one in mind, because I knew she loved the one in physical therapy.

Support teacher for kindergarten & first grade: If [a teacher was planning] something that was pure lecture, I would say, "Could you do a visual component to that? Because [a student with disabilities] really needs to see it, not just hear it." So I can influence what's going on. And also what we plan is the topics we want to co-teach.... That was really important too, so the kids see us all as teachers.

Second grade teacher: I needed that morning meeting with [the support teacher].... That was the time that, not only could we discuss the children and plan for the children, but it was also the time that I needed a certain amount of stroking, and I got it from [the support teacher]. I think I was hoping that it worked both ways, but I needed to be maybe validated for some of the things I was doing.

Second & third grade teacher: [The support teacher] would come in and take over and teach the class to all the third graders, even if it was math. And it didn't matter. It was something that he could teach or I could teach. It was just both of us co-teaching in the room, so it was never set up as [the support teacher] being here for [the students with disabilities].... And he would teach a whole class, and I would be with [two students with severe disabilities].

Support teacher for kindergarten & first grade: If [a student] is having a problem with [the classroom teacher], I don't want to step in. I mean, that's something that [the teacher and student] need to deal with. So I may take over teaching the whole classroom so [the teacher] can then deal with that problem.

Second/fourth grade teacher: [It's important that] you don't get caught up in role specifications, you know, "Well, this isn't in my job description. I don't have to pick up Sara," or "I don't have to do that," or "I don't have to do this." It's just, you're here to benefit everybody.

During one observation, the first grade teacher was suddenly called away from school. The support teacher came in and took over the class, teaching the math lesson with apparent ease. After introducing the lesson, the support teacher assigned the children work to complete individually, then in small groups. While most children worked independently, the support teacher and the occupational therapist assisted children with disabilities.

Just as support teachers and regular class teachers have become team mates, teachers now view therapists as team members who can contribute to improving the education of all students.

> First grade teacher: [The therapists] have also added a lot to our teams, because when they come in the room, I won't only ask them about "classified" children. I would also say, "You know I've noticed he's drooling, and he's doing this, and he's doing that." And they'll come in and help out with other children.

Therapists have not been as involved in team planning, primarily because they are responsible to more teams and some are in the building less often. As a result, therapists don't always have a good understanding of class routines and expectations, and teachers don't necessarily understand what the therapist can contribute.

> Second & third grade teacher: When the [occupational therapist and physical therapist] came in, they had their stuff they had to cover in the IEP and sometimes by hit and miss it might go along with what we were doing in the room, but for the most part I'd have to say they just went ahead and did their own work.... If they were there for planning - I don't know how realistic that could be though, logistically.... But I think that would help a great deal if they had an idea where we're going and vice versa. If I had an idea what they had to do, I might plan differently.

> Second grade teacher: I would assume that they plan with the special ed teacher. I had very little to do with anyone, except they always did [therapy] in my room... so the children would not have to leave the room. But I basically had nothing to do with it ... possibly because I never really knew what they did.

> Second & third grade teacher: If Sara was having [therapy] or Mark was having [therapy] in the back of the room, and I'd go back there, [the occupational therapist] was very good at telling me, "This is what I'm doing right now."... Because sometimes you look at them and wonder, "Why are you doing that to that child?"

Teachers believe the therapists are interested in sharing information, but logistics often interfere.

> Kindergarten/first grade teacher. They're really very open with us when we have any questions, and we feel free to ask them. You know, what are they doing? What are things for? How long should they have them on? [Their input is] also through [the support teacher]. It's whoever they catch first.

> First grade teacher: The special area people are pulled in different directions, because they're not only working with our team. We're going to meet with them once a month to come up with more specific activities. You know, IEPs are nice, but what do we do on a daily basis in the classroom? So I think we need to meet more with them, and also just get written notes. You know, nothing formal. Like [the

> occupational therapist] will sometimes stick notes in my mailbox about what to do with Ben. That helps a lot. Because, even though some of the therapies are done in the classroom, other times they're removed for certain parts of the therapy. And really, once the kids go out the door, we don't know what's going on with them.

In some classes, therapists are starting to participate regularly in planning and/or team teaching.

> Support teacher for second & third grade: The speech therapist this year is assigned to a team, so our speech therapist does meet with us every day at our team planning time, and that's been real beneficial. It helps just to coordinate all the activities. Physical therapists and occupational therapists I see routinely, but we really have to set times to try to meet ... usually on Thursday mornings.

> Kindergarten teacher: Now our occupational therapist comes in on Thursday afternoon and takes half the class and I take half the class and do an activity. And we flip-flop so she'd including everybody in the therapy for [a student with a disability].

> Kindergarten/first grade teacher: We have a new speech therapist working with us this year. And she and [the support teacher] have worked things out so that [the speech therapist] is coming in and doing a block of time in the morning with the children. So [the speech therapist] is coming in more often to find out what we're doing and where she'll fit in.

Teachers think this area needs improvement, either by including therapists in team planning on a reduced schedule and/or by support teachers communicating more extensively with therapists.

> Support teacher for kindergarten & first grade: We're trying to meet at least once a month with the full team, aides and teachers, everyone getting together with the therapists.... Because they're only here twice a week, those days fill up very quickly.

> Kindergarten/first grade teacher: We set one [meeting that includes related services] for once a month, which is not often enough, but they're not here a lot. So we kind of have to work around their schedule.... and to have them on every team would be really hard for them.

In response to the inclusion questionnaire, teachers indicated that classroom and support teachers should plan together 3 to 5 times a week, which is already typical for the classroom teachers, but a slight increase for support teachers. Respondents indicated that speech therapists typically plan with their team about once a month, but once a week is desired. Occupational and physical therapists typically plan with their team once a month or not at all, and once a week is desired. During May, meetings of two teams were observed. A kindergarten-first grade team was planning a picnic for their classes. The support teacher did not attend this meeting, but other teachers noted that often there was discussion of students with disabilities when she attended, and in relation to the picnic, her input regarding participation by students with disabilities would be desirable. A third-fourth grade team, including their support teacher, had a varied agenda that included class lists for students transitioning to middle school. This continued discussion from prior team meetings in which teachers proposed class lists with heterogeneous groups that reflected what teachers know about relationships between and manageability of certain pairs of students. Although neither team planned specific instruction during these meetings, the importance of the support teachers to influence the discussions was evident. No related services staff attended either meeting.

Teachers also recognize the aides as essential members of their teams, who make a tremendous difference in whether the children and other staff are successful in their efforts.

> First grade teacher: You have to have a good aide, somebody that deals well with the children.... And when you have aides in the room, you know they're there primarily for the handicapped children, but they're also willing to look after other children and help them too.

Teachers also recognize that parents are important members of their child's team.

> Kindergarten teacher: We have a notebook that goes back and forth with Mary every day.... I wish I could do that with all kids.... I call my parents more than write.... I've always called to keep in touch, because we're working together for their child. I can't do it by myself. I need their help at home and we need to work together. And I think the same is true with the special needs kids.

> First grade teacher: Kelly's mom told us she could walk down the stairs by herself, at her IEP meeting. And we all thought, "No way!" And we realized she could do it. So we're learning from the children's parents also.

The relationship between teachers and parents varies. In some cases, the support teacher is the primary correspondent with the parents; in other cases it is the classroom teacher.

> First grade teacher: [The support teacher] tends to be the one to write to [students with severe disabilities'] parents rather than myself.... And the notes mainly come addressed to [the support teacher].... The communication between the regular class teacher and the parents of the kids with special needs could be strengthened in some way, so that they really do see us as their child's teacher and not just the special ed teacher is their child's teacher.

> Second/third grade teacher: We work much more closely with the parents of children with special needs, because it's an all-encompassing

> kind of thing. You write in their book at night.... It makes you look from a parent's perspective, though, even for the children in your classroom that don't have special needs.... And I think we should have that kind of communication with the parents for all kids.

Consistent with their expectation that students with severe disabilities will be included in regular class activities, the teachers want parents to see their children as integral members of the class. The teachers also want parents of children with severe disabilities to participate in inclusive school activities.

> Support to kindergarten & first grade: I got together with parents of children with special needs and without, a group of heterogeneously mixed parents....We did t-shirt painting and then we had both kindergarten classes come together and we had a big picnic. And we had parents there because I thought that parents needed to have that support. Parents needed to see how their children interact, and they don't always get that opportunity during school. So our t-shirt painting was at night, and we had a wonderful time. And then the picnic was during the day, but we gave the parents weeks notice so they could plan.

Teachers and parents also formed a Circles of Friends Club to address the needs of students who had friends at school but few if any social contacts on weekends. Eventually run by parents, the group grew from 35 to 75 children who participated in weekend recreational activities, including a dance and a camping trip.

Student Assessment and IEPs

The special education teacher, rather than the regular class teacher, has primary responsibility for formalized assessment of students with severe disabilities. The school is starting to use an "arena" approach to assessment (Bailey & Wolery, 1989) in which several people assess the student together.

> Support teacher for kindergarten & first grade: Usually it's been the OT, PT, [special education teacher], speech, and depending on when it's being done, there's sometimes a classroom teacher. We might call a parent in.... Sometimes it would be appropriate [to involve the classroom teacher] but getting substitutes or trying to get coverage is sometimes really hard.

Although formal assessment of students with disabilities is usually considered a "specialist" role, one teacher took it upon herself to conduct a formal assessment using a standardized tool.

> Support teacher for second, third, & fourth grade: [The second & third grade teacher] wanted a student tested, and I think she got a bit frustrated about it not getting done. So she went to [the assistant principal's] office and got the test and gave it herself.... I don't know how effective it was, but she took on the responsibility of this thing she hadn't done before, ... and she immediately demystified this

test.... And now when someone says "the [test name]," it's not this magical thing. It's this hour long test that she doesn't like.

Second & third grade teacher: We were getting nowhere; it was taking too long, so I went ahead and gave him the math part of it. And that was a good chance for me to see [the process] because you send these files down and say, "Can you please assess this child?" And they come back with this little write-up on him, but you don't really know what went on.

In general, the school is moving away from formal testing. The regular class teachers assess students primarily through an approach they call "kid watching." The teachers find that the kid watching they do with the rest of their class is also appropriate for students with severe disabilities, and kid watching has direct relevance to the IEP.

First/fourth grade teacher: We have our units written with standards of performance, very specific standards, so we know what to watch for.... What we're watching for may be different because of the child's IEP, or because of changes or adaptations in that child's curriculum or materials.... We watch for [our five exit outcomes] with all kids at all times. But then within a certain academic area or unit or lesson, we have very specific things that we're kid watching for. And we keep track of those on checklists and writing on our hands or whatever.

First grade teacher A: There are times when I'm watching for specific things. For example, when the class is reading to me, I'll look to see if they are pointing, or if they're with me, and things like that. And then there's more informal kid watching where I'll watch them during break and snack time, or when they first come in in the morning, where I'll watch to see just how they interact with each other. [A project coordinator] will ask me, "Well, are the kids approaching Kelly? Are they doing things with her?" And it's something I document.

Kindergarten teacher: [Assessment] is ongoing.... Right now, I'm not getting a "yes" and "no" consistently with Mary's eyes up, so I need to know if they're getting it at [her residential program]. And I need to know if there is another thing we need to work on first.... So I need to notice those kinds of things.... And when we sit down and do the IEPs, then you have to know what their goals are. Otherwise you don't know what you're working on.

First grade teacher B: We do a lot of assessment with checklists now. We do very little with formal tests. So when I'm doing an assessment with the kids, like my money unit, I'll put the coins out in front of the children. "Find the dime. Find the nickel. Find the penny. Find the quarter." And then I'll ask the children, "How much is the dime worth? ... the penny? ... the quarter?" ... I'm very comfortable now modifying the assessment if I need to. For example, if I had [a student with moderate disabilities], I would be very

> comfortable having her pick out the pennies and the nickels.... And [the support teacher and I] would adapt the report card. I think we did a really good job, sitting down for maybe 10 or 15 minutes, it didn't take long, and just write the report card together. We both signed it, which I think was nice for the parents to see that we're working together with their child. And it meant a lot to the child to bring home a report card with everyone else.... Then at the end of the year, with [the support teacher], when they were looking at the IEPs to see what goals had been met, that was something that I took part in also. It's exciting to be a part of it. And it's nice to have that knowledge base.

The regular class teachers are active participants in developing IEPs for children with severe disabilities. Knowing the IEPs allows the regular class teachers to understand the student's goals, better adapt curriculum to meet goals, and take more ownership for the children. There has been a definite evolution in the process.

> Kindergarten/first grade teacher: Originally we weren't included [in IEP planning meetings] and I kept saying, "Well, what are you doing? I want to see what you're doing. Why are you doing this? And what does this mean for my classroom?" And then they started including me in it. I think that's really important for all regular educators to sit in on that meeting. They have the parents there, the OT, the PT, the speech therapist, everybody that's involved with the child. And we go over all their IEP goals, what they'd like to see. And I think every regular educator should do that, even though it takes time out of your day, you still need to do that.

> First grade teacher: The first year or two we had children with handicapping conditions in the room, I had no clue of what the IEPs were. And then starting with that third year, I would sit down with [the support teacher] and talk with her, and actually have a say in what the IEPs were. And [we] would talk about what the expectations were for the typical children in first grade, and then we would talk about the child [with disabilities] and what the expectations would be for that child. And so I actually had a say in the writing of the IEPs, and also with the OT and PT and speech, if they were involved. And that helped me tremendously when it came to working with the children, if the special ed teacher wasn't available and there was a last minute change to be made. You know, if I looked at what I had planned for the children and said, "Oh my gosh, [this child] shouldn't be doing this paper! I can see him getting frustrated." I would be very comfortable making an adaptation because I had the knowledge base, ... and then I would tell the special ed teacher later on, "This is what happened, and this is how I handled it," and get the feedback from her. But I felt comfortable making that decision without saying, "Oh my gosh. I've got to go talk to [the support teacher] before I can do this." ... You can't just have a paper bag over your head and wonder why this is happening with this child.

The regular class teachers are no longer just curious about the IEP; they see their involvement as essential if the students' needs are to be met.

> First/fourth grade teacher: I told each of the special ed teachers that I'd like to be involved in [IEP planning], because they're not in here all day, and I am. And there are things I have kid watched for and I can enlarge on. In some cases, especially where something on the IEP needs to be changed, I have more information than the special ed teacher does, and it's very helpful to be in on those discussions. And then we get copies of the IEP, so we are a part of that process.

> First grade teacher: As the classroom teacher, you see different things and different needs. And you also know your specific curriculum a little better than the special ed teacher might.... [For example], the occupational therapist asked, "Do you think Ben will be able to write his name?" and I really felt that no, this was kind of unrealistic for him this year. And it was respected, so I feel I actively participated.

Teachers at Harry L School have made a concerted effort to develop an IEP process that satisfies all "stakeholders." Early in the process an important aspect is the input of all team members. A later part of their process involves developing a matrix showing the relationship between students' IEP objectives and their daily schedule (see Figure 1). When the school district formed a committee to examine the IEP process, teachers from Harry L became actively involved, sharing the results of their efforts.

> Second & third grade teacher: I really like the way [a support teacher] does [IEP planning]. He has the parents in, sits them down, and you have an hour or an hour and a half. You write all the [child's] strengths on the board, what their weaknesses are, and where you want to see them go.... It takes a long time to sit down and do an IEP with a parent and a teacher and all the support staff, ... [but] then you have an idea of what your supposed to be teaching during the year.

> Kindergarten/first grade teacher: I've sat in on a couple meetings on rewriting the IEP ... and advising them to make it friendly to regular educators. And I really think they're doing a good job on that. We keep the IEP where it is so that we know what we're doing, where we can fit in activities for the children.... So I think the matrix would fit in really well.

> Support teacher for second, third, & fourth grade: The danger is that ... there won't be much attention to [the IEP during the regular class activities].... I don't envision having [an IEP] in the classroom. I envision having a working document from an IEP, like this matrix. This is much easier to look at when things are going to be done. This is just something that's workable.

As their IEP process evolves, regular class teachers are less accepting of continued traditional approaches. For several years, the school has housed a program for students with hearing impairments, administered by another education agency. These students are mainstreamed into regular classes, but their inclusion has not progressed at the same rate as for other students with disabilities. Regular class teachers were troubled by the resulting discrepancies in a variety of areas, including the IEP process.

> Second grade teacher: At the beginning of the year [when I had students with severe disabilities], I sat in on the IEP meeting where the parent was brought in, and [the support teacher] went through the whole IEP. And we had a discussion, the parent, [the support teacher], and I.... That was very nice, and something that I miss now that I have hearing impaired students.... And I felt more comfortable working with the children [with severe disabilities] ... and I know it's just the way we plan.... I still like the children [with hearing impairments], but it's working differently.

> Second & third grade teacher: This year [with students with hearing impairments] I can't even get my hands on these children's IEPs even to see where they are, whereas last year [with students with severe disabilities], I was involved from the start. So I had a better idea of what their goals were and where they were going.... It's a different way that people handle things, and I don't feel that ownership.

Teachers at Harry L recognize that there are multiple strategies for achieving the same outcome. When they devise strategies that produce more successful outcomes, however, the teachers try to share their experiences so others can enjoy similar success. They are understandably frustrated when individuals or systems do not recognize the need for collaboration to maximize student benefit.

Flexibility

Teachers have found that they need to be flexible to effectively include students with severe disabilities in regular classroom activities. For some teachers this flexibility was a change, but one they welcomed.

> Kindergarten/first grade teacher: I think you have to be much more flexible and field problems when they come up.... You know, somebody will drop down and have a seizure, or somebody will have to be removed from the room. And you have to be flexible enough to deal with that kind of thing.

> Second & third grade teacher: The whole structure of the classroom, that you have children that are in wheelchairs, but you want to put them on the standing board. What kind of lesson can you offer them that can include them and do that? You can sit there and fill up the planbook with all these ideas, but then when it comes time to do it, ... you see it's not going to work. Well, you're not going to go with it. You're just going to try something else. And that's why the

planbook is never in ink.

> Second/fourth grade teacher: I came in as a very structured brand new teacher, thinking that everything had to happen, like from 8:10 to 8:30, we had to do this and we couldn't run over.

> First grade teacher: If Kelly is doing something that I think is really positive, I'd rather stress it and call the kids attention to it and stop what I'm doing for a minute. Or if we don't have materials available for Ben right then, lot's of times it might be a scramble.... So I think you have to be more flexible.

Teachers feel like having students with severe disabilities in their classes has given them "permission" to be more flexible, which has enabled them to adopt a teaching style, create a classroom structure, and design activities that are more successful for all children.

> First grade teacher: I've also done a lot with working with smaller groups of children now. I'll repeat a lesson three times and teach it to smaller groups, rather than do it to the whole class.... And in the small group I can meet the individual needs of the children, which six years ago I wouldn't have had any idea how to do. And I think a lot of that comes from having worked with handicapped kids.... I'm more comfortable letting the children take the initiative. I'm more comfortable letting the children do more. I'm more comfortable with active participation, getting up, walking around the room, helping each other. I don't think I did much at all with peer tutoring until after I had handicapped children. And now it's just a standard....
>
> I'm very much more comfortable with the higher noise level.... I taught in [another] school for four years and the principal would come in and the children were expected to have their hands folded on the desk and paying total attention to the teacher while the teacher lectured for most of the day.... And when I first started substituting here, of course I thought, "Oh my gosh! This noise level is too high!" And [the principal] came in and watched a lesson and said, "Well look at what you're doing and look at what they're talking about. It's all on task. That's active learning."

Because the students with severe disabilities require an array of supports and special services, there are more adults in classrooms than typically found in an elementary school. Although most teachers found this a little challenging, individual teachers have adapted and teams have worked to use all personnel effectively.

> Support teacher for second & third grade: There was concern for the kids and there was concern about having the aides in the room, and all the other people that end up coming in and out of a classroom when you're working with children that have these needs. Having physical therapists, occupational therapists, speech therapists in and out throughout the day is.... Well, I know the school is used to a lot of visitors, but still, on a daily basis to be up there trying to focus

> attention on the lesson, and having the door open and close, and having so many people come in and out was a concern that they had. And the kids seemed to get used to that very quickly, and when the student response is positive, then the teachers really seemed to be comfortable with it. And I think once you get to know each other and feel comfortable and uninhibited teaching in front of one another, then it becomes even more fun. Because there's a lot of opportunity to share in that whole teaching experience.

Because team members have adopted flexible roles and a team structure in which special education teachers and therapists work alongside classroom teachers, the classroom teachers expand their competence. Many teachers are comfortable planning and trying out strategies with students with severe disabilities without guidance from the "specialists" on their teams.

> Kindergarten teacher: [Visitors] are so concerned about the little things, diaper changing and all that piddly stuff, that they miss the big picture is that I am not fearful. That if the aide walks out... or if [the support teacher] is not here, I can feel I know what to do.

> Support teacher for second, third, & fourth grade: There's still a lot going on when I'm not around or not able to see things the teacher is doing with kids, with all kids.... It's not, "Where's [the support teacher]? I have to wait for this person." People aren't waiting for someone to tell them it's right. They're trying it out. That doesn't mean it's always good, but it's neat, because then they share information and they're the ones who are responsible for those students.

Flexibility in roles, learning environments, and teaching strategies does not seem to be entirely new at Harry L, but teachers credited the inclusion of students with severe disabilities for demanding types and degrees of flexibility they had not previously achieved.

Let it Go

Teachers carefully consider the relative importance of the various demands they place on students, based partly on the way students respond to those demands. Having students with severe disabilities in the class has helped put more minor problems in perspective.

> Second/fourth grade teacher: I can remember in my first month of teaching, if somebody didn't have a pencil ... spending five minutes with, " Why don't you have a pencil? I'm not going to get you one. It was your responsibility."... Why did I spend ten minutes over not having a notebook or not having a pencil and getting all upset about that and missing ten minutes of instruction, and dwelling on that? It really puts in perspective what's major and what's minor.

Teachers are also more likely to stand back and let others work things out on their own, including how to meet immediate needs of the students with severe disabilities.

> First grade teacher: Mark was way in the back row and he had a coughing spell. And there were two classes [in the room for story time], so there were about fifty kids out there. And I thought to myself, "Well, what am I going to do? How am I going to get all the way back to him without stepping over twenty kids?" And the little boy sitting next to him just very nonchalantly sat him up. When Mark was finished coughing, he wiped his face, put the cloth back down, sat Mark back in the seat, and turned around without even batting an eyelash.

> First grade teacher: We have two aides in the morning, and the one aide leaves at 11:00, so we have 20 minutes of panic time. And I guess Kelly started screaming ... and [the remaining aide] said the screaming stopped all of a sudden. And she came out and there was another child stroking Kelly's back and calming her down.... It was totally natural. [The other child] saw there was a need and she stepped in and took care of it.

Teachers are learning to accept, ignore, and/or overlook challenges that some students present that are not easily resolved, but can interfere with instruction. They are also learning that temporarily changing their expectations may be the most constructive approach for a child who presents persistent problem behavior.

> Second grade teacher: Jamie came to visit this morning.... Apparently what was going on in [fourth grade] was not satisfying her. She was out in the hall, and occasionally she'll come in the room. And I was talking to [Jamie's aide], and I said, "She really likes it in this classroom." And [the aide] said, "Well they're moving around, there's some noise, and she can kind of sit down and look." So I said, "As long as she doesn't pull my hair." She does that occasionally. And [the aide] said, "No, she's really in a good mood today and she won't." And [Jamie] gave me a big hug, and then she sat around to see what else was going on.

> First grade teacher A: We are having a very frustrating year this year.... [Compared with last year] it has gotten somewhat better. Kelly screams less.
>
> Support teacher for kindergarten & first grade: Yes, she is screaming less, but when she screams, the intensity seems to be worse.
>
> First grade teacher B: But the kids have gotten used to it now. I'm used to it too now. Like in my room, they don't know Kelly, and now it doesn't make any difference to them when she walks back and forth....
>
> Support teacher for second, third & fourth grade: I think that there are behaviors that are disruptive, aggressive, that are significant enough to really throw a classroom off of what they're doing. I think there are students that have those behaviors, and we're going to have to decide whether we want them in our school or not. I think we've chosen to say, "Yes, we do want them here." But that still leaves that difficulty of saying how much is it going to throw that classroom off? How much benefit are all people going to get from having that student here?...

> First grade teacher A: I think part of my frustration at the beginning of the year was that we were doing Kelly more harm than good because our expectations were too high. I think she was being faced with confrontations by myself, or [the support teacher], or the aides, over and over and over again during the day, and that's why she was screaming so much more. Well, now we've lowered our expectations, so she sits and listens to a tape recorder.
>
> Support teacher for kindergarten & first grade: I'm looking at it saying, "What are we teaching her?" These are her goals (gesturing to IEP). These are things that her team really feels like she should accomplish with her. The screaming is less, but then we're weighing feeling comfortable about school against skill acquisition.
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> First/fourth grade teacher: What were you accomplishing before?
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> Support teacher for kindergarten/first grade: Right. That's why we backed off. Because before we had her actively involved in programming all day, but the screaming escalated and became worse. So we backed off....
>
> First grade teacher A: We basically decided the main goal for Kelly this year would be to get her to somewhat like coming [to school]. And the other day, when her mother brought her in, she left her mother willingly.

An observation in another first grade classroom revealed unusual tolerance for the behavior of a child with severe emotional and behavior problems who, in the fall, was often violent. During this observation, in April, the teacher persists with asking Alicia to join in the class routine, but overlooks considerable "noncompliance" that doesn't really cause problems. The other children's behavior reflects the teacher's attention to problem solving, attitude of acceptance, and philosophy that the class is a family.

> The class has just returned from art, and Alicia appears bubbly and happy. The teacher instructs the children to sit at their tables, but Alicia stands at a counter playing with sticks tied in sets of ten.
> Teacher: OK get out your calendar. Alicia, we'll do that in a minute.
> Alicia continues. A child goes to the calendar in the front of the room to count and put up the next date. Alicia dances to the calendar, talks, and plays with materials. When she starts to locate today's date, the teacher reminds her it's the other child's turn. The teacher continues her lesson and then instructs everyone to write today's date on their calendar. No one seems particularly concerned by Alicia.
> Todd (child with moderate disability): I don't have a pencil.
> Teacher: If you don't have one, what do you do?
> Todd: Get one.
> Teacher: Go ahead.
> Todd starts to get up, but other children offer him a pencil.
> Alicia sharpens her pencil, and sharpens it, and sharpens it.
> Teacher: Quick!
> Alicia continues sharpening her pencil.
> Teacher: Alicia, now please! We can't hear when you're sharpening.
> Alicia sits and starts working.
> Todd: I don't know how to write ten.

Teacher: I'll write it for you.
Another child helps Todd. The teacher instructs the class to make a greeting card, and everyone gets to work. Alicia is at her seat, but seems to be cleaning her desk out. The teacher stands nearby.
Teacher: Alicia, are you doing your job?
Alicia: I'm trying to do something! (She frowns and seems increasingly agitated.) I can't do it!
Teacher: You can try. Everyone else did.
Alicia: I can't do it!
Teacher: Then you won't have a card.
The teacher calmly walks away and helps other children. Alicia still looks unhappy, but starts working on her card. A few minutes later the support teacher arrives and Alicia happily shows her card. The support teacher encourages her and moves on to help others. There was no further mention of Alicia's prior behavior, and if the two teachers discussed it, the discussion was too subtle for the observer to discern.

Later, the teacher commented on this situation.

> Kindergarten/first grade teacher: You just learn to ignore that, to go on, to deal with that the best you can. If you deal with it the best you can, the kids are going to deal with it.

As teachers learn to deal with a variety of new challenges, there has also been a shift in concerns from day-to-day management issues to other themes discussed in this paper.

> Second & third grade teacher: [Visitors] say the craziest things, like they come in and they say, "Do you change her diaper right here in the classroom?" And I think, "Why are you looking at things like that? Look at the wonderful things we're doing here. Ask me questions. I mean, you're worrying about her diaper?!"
>
> Second/fourth grade teacher: Or "Are you responsible for feeding her or giving her snack, or do you have to pick her up ever? Do you have to touch her?"
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> Kindergarten/first grade teacher: And those are the fears that [support teacher] and I had the first year.
>
> First/fourth grade teacher: And those are the questions that we asked?
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> Kindergarten/first grade teacher: That's right! Exactly! We met in August and I found out I was going to have Mark and Sara. I had eight kids with disabilities that year in kindergarten, eight in one classroom. And that was one of the first things I said. "Am I going to have to change diapers? Who is going to feed these kids?" I was petrified about those kinds of things. And these are what people are asking us.
>
> First/fourth grade teacher: We started out at that level years ago, and we still get the screaming meemies sometimes and sometimes we fight. We really do. We don't always agree. But our discussions and our arguments are at a much higher level than they were when we started.

It seemed that teachers have been able to "let go" of these issues because they were able to resolve the issues in reasonable ways, or because they realized and accepted that some situations were beyond their control and not a good use of their energy.

Stress

In the questionnaire on inclusion, respondents reported that, at various times during the past five years, they have experienced ongoing stress due to a variety of factors related to including students with severe disabilities in regular classes. During interviews, teachers reported particular concern about the school's initial efforts at inclusion.

> Support teacher for kindergarten & first grade: The first year... we had three students in wheelchairs, plus other children who had all different kinds of needs, and there was only myself and a special ed aide. And sometimes it was just impossible for us to have one child at each table. We would group them all together just because we didn't have enough hands to go around. Now that we have more adults, ... a child with special needs can be at a table with all his friends.... There were six or seven students with severe needs in kindergarten, ... and I had no planning period, no lunch.... [The kindergarten teacher] was doing all the planning and I would go in and I would just look at what she was doing.... There were many times I had no idea what was going on ... scrambling to come up with even partial participation activities or small group. And now what a difference have we made. I feel more a part of what's going on.

> First grade teacher: I had too heavy a load that first year. I think I had five [students with severe disabilities]. I said we learned by our mistakes, ... and that was one of our big mistakes. It was not a good proportion of handicapped children to typical children. I also had an aide that year who did not do well with the children.... She would say things like, "You can't come and do this with me. You're a bad boy." And that would upset [the student] right back into another desk-throwing incident.... You also need a special ed teacher who's going to work with you. And I had one who did not work with the children, and really chose to ignore the children.... Another big source of stress, which was something I brought on myself, was that I did not feel that I had the knowledge base of what to do. And I think we need to be comfortable sometimes with just following our own instincts.

Teachers were also concerned about having sufficient information about the students with profound and multiple disabilities who were in their classes.

> First grade teacher: I was worried with Mark that he would have some sort of medical emergency and I wouldn't know what to do. But I didn't need to worry about it because the support was always there.

> Second/fourth grade teacher: In the very beginning of second grade, I was afraid to pick Sara up, or stretch her, do range of motion, because she was so rigid, and I was thinking I was going to break

> something. But I think in time, that really eases up. I don't really think it's a big deal anymore. Plus, if you have a really good support system, you get the help you need.
>
> Second & third grade teacher: I did get kind of a crash course ... [while] going through their files with [the support teacher]. And when they came in the beginning of the year [I got] explanations about the seizures, what to do, what to look for. And what to do for Mark with the oxygen.... When Mark got the feeding tube put in, ... I was worried that I was going to pull that feeding tube out.... [The support teacher] explained how long the tube was inside him, how hard it would be to come out, what to do, how to hold him instead so you wouldn't press on the tube. I think there needs to be more of that.

Although the teachers would like more information and preparation, they also express confidence in getting information and in using their own judgement.

Some students with severe disabilities present significant behavioral challenges that are not easily resolved or overlooked. Generally teachers agreed that it was more stressful to include these students than students with profound and multiple disabilities.

> Kindergarten/first grade teacher: [Some children with severe disabilities] are really easy to deal with. But you have the children that are screaming and running and that are extremely disruptive, that's hard on a day-to-day basis. I guess there's frustration too when you ask for help with these kinds of children, and you really don't have any kind of follow up on that.... Even the special educator needs help and is not getting it.... Having other people in the room, ... teaching a lesson and it all goes out the window because somebody has a seizure, you learn to deal with those things. It's manageable. But it's stressful when you don't really know what to do.
>
> Support teacher for kindergarten and first grade: Lack of space [is a problem]. For instance, when Kelly screams, ... she needs to be removed from the classroom... because that seriously interferes with what's going on. And there was no place to bring her. I have a space, but I share it with OT and PT, so there were always people in there. So I would bring Kelly in there and she would still be screaming, and they were like, "Well, what do we do?"
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> First grade teacher: Today is one of [Kelly's] more difficult days, and we're down personnel today, so it's been kind of difficult covering people. [Another student] who is less severely impaired, tends to lose out on days when [Kelly] is off, because somebody has to go with Kelly, and then there's Ben to deal with. And [the student with mild disabilities] behavior is not difficult to deal with, but then he loses out academically in order for us to deal with the behavior problems.... I think each day brings a new set of things to deal with.
>
> Support teacher for second, third, & fourth grade: [Changing a

> student's behavior] can take a long time. I know very well from Jamie with her shoes off every five minutes that year. I was ready to pack it in.... But for all those cases and kids, I can think about positive change. And it took a lot of our patience cells away.

Other potential sources of stress include the need to work with a team, to accommodate ever-changing groups of adults in the classroom, and to accommodate to plans that change at the last minute.

> Kindergarten/first grade teacher: You have a lot of people in the room. That was one of my things that I had a lot of trouble with the first couple years, because I had never had anyone in the room except for me and maybe an aide half an hour a day.... You have OT, and you have PT, and you have speech, and you have a special education teacher, and you have your aides, and you have all those other people. And so that's tough getting used to. I guess we tried to work it out so that not everybody was in there at the same time.... I found that very stressful the first couple years, because I'm really basically a very solitary person. And so having all those people in there watching me was really hard.... And you do have to resolve it.

> First/fourth grade teacher: [Having a student with severe disabilities in my class] made it more complicated for me because I was needing to team closely with another person, and in some cases the team helped with that by covering the class, or taking part of the class to give us planning time.... I have to anticipate anything I'm going to need to know in the planning session, because that teacher is not always going to be in here.... But for every time I'm without needed help from support personnel, there are times when those people are in here working with somebody else ... [which is] positive for the entire class....

> First grade teacher: If we need [materials adapted], I'm not to the point that I will always think of it ahead of time because I still rely on [the support teacher] to do a lot of that stuff. So if we don't meet, that can cause stress in the classroom. So we do meet a lot more. And sometimes I'm tired of meeting and I don't want to meet and I just want to be in my classroom....

> Support teacher for second & third grade: People are always trying to do a lot of new things. And curriculum itself is often being developed almost an hour before we're teaching it. And [it's stressful] for that reason, just to do it generally, and then to do it inclusively adds another factor to consider.

> Support teacher for second, third, & fourth grade: In the amount of time in the day to change and adapt things, it's really hard to adapt for all kids. And there are still teachers who ... are planning the day before they teach, or in the morning for the afternoon. And that kind of leaves you in a place where you say, "Which is worse? [Not adapting] or seat of the pants adaptation."

Even while teachers discussed ways that inclusion was stressful, they expressed commitment to their school reform activities, such as including students with severe disabilities in regular classes.

> Kindergarten teacher: I think when you talk about teacher burnout, you're talking about teachers who do the same thing day after day after day.... We never do the same thing here. Every year is a new challenge.

> Second & third grade teacher: It's more work, but if it's something you like, I don't think it's a stress.

> First/fourth grade teacher: We would very often say, "This is disruptive to my class." A lot of things that happened weren't that disruptive, were not disrupting learning on the part of the class.... We've learned to discern ... if it's disruptive to the group and the learning process, or if it's just us.
>
> You have to look at a new situation, something that's causing conflict, as positive, because the way we learn is because something's not working. It needs to be changed. And there is conflict or stress and then you move to a higher thinking level. And that's what we've done with our special ed model. There are some stressors that we're still working on. But some of the stressors that are inherent in having children with special needs just simply took us to a higher thinking level, and they are no longer stressors.

Accountability

Harry L School has an ethic of teachers continually learning, growing, and evaluating their practices. While that ethic undoubtedly set a backdrop for successfully including students with severe disabilities, teachers have consistently approached the associated challenges as opportunities for further growth. This paper is comprised largely of examples of how teachers have reflected on and demonstrated accountability for their beliefs and practices in relation to inclusion of students with severe disabilities. It appears that these students have stimulated a new wave of reflective practice at Harry L School, which has brought educational benefits to all students and professional benefits to their teachers.

Discussion

This paper presents eleven themes that demonstrate the overwhelmingly positive effects on regular class teachers of fully including students with severe disabilities at Harry L School. Rather than inclusion producing entirely new effects, however, the findings suggest that there was more of an amplification or generalization of attitudes, philosophies, and practices that existed in the school prior to the start of inclusion. In a study of the same school, Salisbury, Palombaro, and Hollowood (1991) identified six characteristics of the school's culture that seem to lay the groundwork for successful inclusion of students with severe disabilities. Thus, the nature of the school before inclusion seems to have predisposed teachers both to consider this initiative and to ensure its success.

Teachers who participated in Harry L's early efforts toward inclusion told stories of great difficulties. Despite that, the teachers looked for other strategies, created needed supports, and tried again. As they experienced greater success, they looked for even better approaches and increased their conviction. Teachers who joined the faculty more recently recalled their struggles as first year teachers, but seemed to achieve the same success at inclusion relatively quickly, then achieved the same high level of conviction to the principles and practices of inclusion. In many respects, teachers conveyed the adage that "success breeds success." This does not entirely explain their determination during the first two years of inclusion, when some aspects of their approach were ineffective. All the teachers seemed to believe they could overcome the challenges they encountered, and that they would receive the supports they needed to overcome the challenges. It may be that the most fundamental underlying characteristic of an inclusive school is a commitment to provide regular class teachers with the supports they need to make inclusion work, a commitment that must be demonstrated by both special educators and school administrators.

There are two limitations to this study. First, the conclusions are closely tied to perceptions of the eleven teachers who participated in the study. Although triangulation occurred through interviews, questionnaires, direct observation, and review of extant data, teacher report data were considerably more extensive than other data. Furthermore, in a study such as this one, there is danger that teachers will tell the story they believe "authorities" (e.g., researcher, administrator) want to hear. The study was of relatively short duration (5 months), and was not designed to provide true immersion in the environment or sufficient direct observation to corroborate all of the teachers perceptions. The findings of this study are strengthened, however, in that they are highly consistent with the findings of Salisbury, Palombaro, and Hollowood (1991), who were deeply immersed in the school for two years.

The second limitation relates to the generalizability of these findings to other schools. This study examined only one school, which, as Salisbury et al. (1991) noted, has unique features that might not be found in other schools. The findings are consistent with those from studies of ten schools in Vermont (Giangreco, Dennis, Cloninger, Edelman, & Schattman, 1991) and two schools in Minnesota (York, Vandercook, Macdonald, Heise-Neff, & Caughey, 1992). Thus, if characteristics of Harry L School predispose teachers to positive experiences related to inclusion, other schools have assumed the same or equally supportive characteristics. If teacher perception of support is a deciding characteristic, such support could be demonstrated through numerous mechanisms, which could vary with other characteristics of the school and community. As more schools are studied and results disseminated, further comparative analyses may reveal those factors that are crucial for teachers to feel positive about inclusion of students with severe disabilities in regular classes.

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APPENDIX A
LETTER TO PARTICIPANTS

January 2, 1992

Dear Teacher:

Thank you for agreeing to participate in the study, "The Effects of Full Inclusion on Regular Education Teachers." Teachers, including special education teachers, who have had students with severe disabilities in their classes for at least one year are invited to participate.

The study consists of two parts: interviews and direct data collection. There will be four sets of interviews, scheduled as follows:

Large group interview (icebreaker)	January 21,	1:00 to 4:00 PM
Individual interviews (elaboration)	February	to
Individual interviews (elaboration)	March	be
Large group interview (wrap up)	April	scheduled

For participation, attendance at all four interviews is desired. Substitute teachers will be provided so the large group interviews can be scheduled during work hours. The shorter individual interviews, about one hour, will be scheduled for the end of the day. What we learn in the interviews will determine what type of data we collect, e.g., if you tell us donut consumption has increased as a result of inclusion, we will collect data on donut consumption. If direct data collection in classrooms is warranted, it will be discussed with individual teachers.

For accuracy, it is necessary to audiotape all interviews, which will be transcribed. During the large group interviews, it will also be necessary to videotape the interviews so the speaker can be identified on the audiotape. Speakers will be given pseudonyms and described in general terms (e.g., third grade teacher), but names of participants in the study will be strictly confidential. Neither the audiotapes not videotapes will be used for any other purpose unless informed consent is given by the speaker(s).

If you have any questions or concerns about the study, please feel free to call me at SUNY (777-2727) or at home (748-3667).

Sincerely,

Beverly Rainforth, PhD
Assistant Professor of Special Education

APPENDIX B
QUESTIONNAIRE ON INCLUSION

Role: Classroom Teacher Support Teacher How many years?

Which students with severe disabilities have you taught? (circle names)

Mark Sara David John Randy Justin Kelly

Jamie Mary Todd Ben Jill Jan Chrystal

The purpose of this study is to identify the effects of integrating students with severe disabilities on regular education teachers in inclusive schools. Several effects were identified through interviews and observations, but the effects vary for different teachers. To help clarify these variations, please complete the following questionnaire. I welcome any comments that would qualify, expand, or otherwise clarify your response. Thanks for your help.

1. In my class, grade _____, we teach about students with disabilities
   (a) as a formal part of the curriculum (e.g., alike and different)
   (b) incidentally, as the need arises, or
   (c) both

2. With regard to adoption of developmentally appropriate practices,
   (a) having students with severe disabilities in my class forced me to make changes in my curriculum that benefitted all students;
   (b) I would have moved in this direction, whether or not I had students with severe disabilities in my class; or
   (c) my curriculum already reflected this approach.

3. With regard to a philosophy of "success for all,"
   (a) I really believed this, so I believed students with severe disabilities would be successful in my class too; or
   (b) I didn't really expect everyone to succeed until I saw students with severe disabilities succeed at their own level in my class. Then I realized all students could succeed if I recognized their level.

4. I Usually / Frequently / Occasionally plan lessons for the class
   (a) U F O so all students can use manipulatives
   (b) U F O so lessons reach students with varied learning styles
   (c) U F O so students can demonstrate knowledge in varied ways
   (d) U F O so students of varied abilities can participate and succeed
   (e) U F O with mixed ability groupings
   (f) U F O with same ability groupings
   (g) U F O with cooperative goal structures
   (h) U F O with competitive goal structures
   (i) U F O with individualistic (neither cooperative nor competitive) goal structures

6. In my class, students with severe disabilities are/were included in the regular activities, with or without adaptations, (indicate amount)
   (a) for most / some / little of the day during regular activities
   (b) for most / some / little of the time during speech therapy
   (c) for most / some / little of the time during physical therapy
   (d) for most / some / little of the time during occupational therapy
   The amount of inclusion was appropriate for (a) (b) (c) (d)
   too little for (a) (b) (c) (d)

7. Indicate the frequency that each discipline participates in team planning sessions.

	TYPICAL	DESIRED
(a) regular class teacher	_____ times per week	_____ times per week
(b) support teacher	_____ times per week	_____ times per week
(c) speech therapist	_____ times per month	_____ times per month
(d) occupational therapist	_____ times per month	_____ times per month
(e) physical therapist	_____ times per month	_____ times per month

8. True False Based on my experience, I expect that children with severe disabilities who are more active and disruptive will participate in fewer inclusive classroom activities and more parallel activities than children with multiple disabilities.

9. With regard to challenging behavior, (circle all that apply)
   (a) I am more likely to accept, ignore, and/or overlook minor disruptions than before I had students with severe disabilities in my class.
   (b) I am more likely to stand back and let children work things out than before I had students with severe disabilities in my class.
   (c) having students with severe disabilities in my class hasn't really influenced my style in this area.

10. True False I feel as though having students with severe disabilities in my class gave me "permission" to be more a flexible and creative teacher.

11. Regarding IEP planning, I participate in planning with
   (a) support teacher on my team
   (b) therapists on my students' team
   (c) parents of students with disabilities
   (d) I do not participate in IEP planning, although I have a copy of the IEP and I know the goals for my students

12. Having students with severe disabilities in my class, I have experienced ongoing stress from (indicate whether Never, Previously, or Currently)
   (a) N P C additional time required for planning
   (b) N P C time to individualize/adapt during the day
   (c) N P C student interruptions that disrupt the class
   (d) N P C inadequate professional/paraprofessional support
   (e) N P C too many adults in the classroom
   (f) N P C insufficient attention to my priorities for students

RESULTS OF QUESTIONNAIRE ON INCLUSION

Note: Numerals in parentheses indicate the number of responses.

Role: Classroom Teacher (6) Support Teacher (1) No Response (1)
How many years? (2-20; median 6)

Which students with severe disabilities have you taught?
(2-13 of named students; median 3)

1. In my class, grade _____, we teach about students with disabilities
   (0) as a formal part of the curriculum (e.g., alike and different)
   (0) incidentally, as the need arises, or
   (8) both

2. With regard to adoption of developmentally appropriate practices,
   (4) having students with severe disabilities in my class forced me to make changes in my curriculum that benefitted all students;
   (4) I would have moved in this direction, whether or not I had students with severe disabilities in my class; or
   (0) my curriculum already reflected this approach.

3. With regard to a philosophy of "success for all,"
   (8) I really believed this, so I believed students with severe disabilities would be successful in my class too; or
   (0) I didn't really expect everyone to succeed until I saw students with severe disabilities succeed at their own level in my class. Then I realized all students could succeed if I recognized their level.

4. I Usually / Frequently / Occasionally plan lessons for the class
   (3)U (4)F (1)O so all students can use manipulatives
   (6)U (2)F (0)O so lessons reach students with varied learning styles
   (5)U (3)F (0)O so students can demonstrate knowledge in varied ways
   (7)U (1)F (0)O so students of varied abilities can participate & succeed
   (7)U (1)F (0)O with mixed ability groupings
   (0)U (1)F (6)O (1)Never with same ability groupings
   (7)U (1)F (0)O with cooperative goal structures
   (0)U (0)F (4)O (3)Rarely/Never with competitive goal structures
   (0)U (3)F (5)O with individualistic (neither cooperative nor competitive) goal structures

5. In my class, students with severe disabilities are/were included in the regular activities, with or without adaptations, (indicate amount)
   for (7)most (1)some (1)little of the day during regular activities (RA)
   for (4)most (2)some (2)little of the time during speech therapy (ST)
   for (0)most (7)some (1)little of the time during physical therapy (PT)
   for (4)most (4)some (0)little of the time during occupational therapy (OT)
   The amount of inclusion was appropriate for RA(7) ST(4) PT(5) OT(6)
   too little for RA(0) ST(3) PT(1) OT(1)

6. Indicate the frequency that each discipline participates in team planning sessions.

	TYPICAL (median)	DESIRED(median)
regular class teacher	3-5 times per week	3-5 times per week
support teacher	1-5 times per week	3-5 times per week
speech therapist	1 times per month	4 times per month
occupational therapist	0-1 times per month	4 times per month
physical therapist	0-1 times per month	4 times per month

7. True (4) False (3) Based on my experience, I expect that children with severe disabilities who are more active and disruptive will participate in fewer inclusive classroom activities and more parallel activities than children with multiple disabilities. [2 respondents said "false" but added comments about challenges of including these students.]

8. With regard to challenging behavior, (circle all that apply)
   (7) I am more likely to accept, ignore, and/or overlook minor disruptions than before I had students with severe disabilities in my class.
   (8) I am more likely to stand back and let children work things out than before I had students with severe disabilities in my class.
   (0) having students with severe disabilities in my class hasn't really influenced my style in this area.

9. True (7) False (0) I feel as though having students with severe disabilities in my class gave me "permission" to be more a flexible and creative teacher.

10. Regarding IEP planning, I participate in planning with
    (8) support teacher on my team
    (7) therapists on my students' team
    (8) parents of students with disabilities
    (0) I do not participate in IEP planning, although I have a copy of the IEP and I know the goals for my students

12. Having students with severe disabilities in my class, I have experienced ongoing stress from (indicate whether Never, Previously, or Currently)
    N(2) P(4) C(2) additional time required for planning
    N(1) P(2) C(2) time to individualize/adapt during the day
    N(1) P(3) C(3) student interruptions that disrupt the class
    N(2) P(3) C(0) inadequate professional/paraprofessional support
    N(5) P(0) C(0) too many adults in the classroom
    N(3) P(2) C(0) insufficient attention to my priorities for students

APPENDIX C
CLASSROOM OBSERVATION PROTOCOL

Date Time Grade Teacher

Observer Students

Activity

Grouping

Materials

Learning styles

Participation by students with severe disabilities

Adaptations

Assistance/support for students with severe disabilities

Team

Problem

Resolved? Yes No

Problem solvers

Outcome

Source of stress? Yes No

Minor problems overlooked/Students directed to handle

Assessment of students with severe disabilities

Self-assessment

KEY FOR CLASSROOM OBSERVATIONS

Activity [describe the activity observed, including the roles/participation of staff and students without disabilities]

Grouping [size, makeup, and location of groups; roles of all students; involvement of students with severe disabilities in group; goal structure - individualistic, cooperative, or competitive]

Materials [list materials used by class in general and, if different, by students with severe disabilities; note types of manipulatives used by one or more students]

Learning styles [evidence of multiple ways for students to demonstrate knowledge; evidence of multisensory approach - visual, auditory, kinesthetic, tactile input/output; evidence of Bloom's taxonomy]

Participation by students with severe disabilities [describe]

Adaptations [in methods, materials, curriculum; for curriculum, same activity different skill/step/materials, parallel activity tied to same theme, separate activity unrelated to theme]

Assistance/support for students with severe disabilities [type/amount of support needed vs given; source of support - reg. class teacher, support teacher, related service provider, paraprofessional, another student]

Team [adults who enter classroom; what they do with whom; time arrive/depart]

Problem [describe issue, who raises it, circumstances]

Problem solvers [list adults by role, count students +/- disabilities]

Outcome [describe solution, whether implemented, whether satisfactory]

Source of stress? Yes No [for adults/children in classroom, evidence that it did/not/might/not produce stress]

Minor problems overlooked/Students directed to handle [list instances]

Assessment of students with severe disabilities [any evidence that teachers engaged in "kid-watching", who did it, what it comprised]

Self-assessment [any evidence that teachers engaged in reflection about success of lesson/instructional strategies/behavior management/inclusion, particularly for students with severe disabilities]

D.C. Schedule + Goals

	Arrival	BATHROOM	MATH	SPECIALS	BATHROOM	SPELLING	LUNCH	Playground	DIRT/JOURNAL	BATHROOM	SOC. ST	Science	DEPARTURE
Remain Dry + UNSOILED		X			X			X		X			X
Drinks from Fountain	X	X			X			X		X			X
Pulls up/down Pants		X			X			X		X			X
Brush Teeth		X						X					
WASH Hands		X			X		X	X		X			X
Removes Coat/Hanger	X						X	X					X
Picks up object from floor	X		X	X				X			X	X	X
Yes/No gestures or vocalizations	X	X	X	X	X	X	X	X	X	X	X	X	X
Point to pictures + objects	X		X	X		X	X		X		X	X	
empty a container by dumping			X			X						X	
Goes up + down stairs w/ belt		X		X	X		X	X		X			X
Scoop and jab food - fork spoon							X						
Drink from cup							X						
Throw ball into target			X	X				X				X	
Hit balloon w/ hands				X				X					
Kick a ball 5 feet				X				X					

Figure 1. Matrix of a student's IEP objectives and daily schedule.

PUBLICATIONS RESULTING FROM THE COLLABORATIVE EDUCATION PROJECT

Evans, I.M., Salisbury, C.L., Palombaro, M.M., Berryman, J., & Hollowood, T.M. (1993). Peer interactions and social acceptance of elementary age children with severe disabilities in an inclusive school. Journal of the Association for Persons with Severe Handicaps, 17(4), 205-212.

Salisbury, C. (1992). Mainstreaming during the early childhood years. Exceptional Children, 58(2), 146-155.

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The Association for Persons with Severe Handicaps

Peer Interactions and Social Acceptance of Elementary-Age Children with Severe Disabilities in an Inclusive School

Ian M. Evans, Christine L. Salisbury, Mary M. Palombaro, Jennifer Berryman, and Tia M. Hollowood[1]
State University of New York at Binghamton

Although there has been much attention paid to the social relationships of students with severe disabilities in integrated environments, few studies depict the kinds of interactions that can be expected in mainstreamed classrooms. Such information is important for designing classroom ecologies and interventions that will maximize developmental opportunities for all students. Eight children with severe disabilities and eight nonhandicapped peers were observed in their regular elementary school classrooms. Students with severe disabilities received more social approaches than they made. These interactions tended to be receiving assistance, although talk, play, and physical affection were also prevalent. Over the school year the number of interactions declined; however, the pattern (proportions of different types of interaction) became more typical (like those of nonhandicapped peers). Acceptance was measured by sociometric nomination, revealing that some of the students with severe disabilities were very popular, and some were not. Acceptance seemed unrelated to social competence, which did correlate with frequency of interactions initiated by the students with disabilities; acceptance was not related to number of social approaches made or received. The results indicate that children's social acceptance and opportunity for interaction are not uniquely associated with their status as individuals with severe disabilities, and suggest that the implicit standards and values of the students may play a significant role.

DESCRIPTORS: integration, mainstreaming, social interaction, social skills

Although there are still considerable regional variations in the degree to which students with severe handicaps receive their education in integrated settings (Danielson & Bellamy, 1989), mainstreaming has become widely accepted as a desirable goal on ethical, humanitarian, and constitutional grounds (e.g., Biklen, 1985; Gaylord-Ross & Peck, 1985; Stainback & Stainback, 1985; Wilcox & Sailor, 1980). The social outcomes of the physical integration of exceptional children have been more debatable (see Peck & Cooke, 1983). Some investigators (e.g., Corman & Gottlieb, 1978; Gresham, 1982; Meisel, 1985) have tended to emphasize the failure of integration to ensure enhanced peer relationships, whereas others have indicated that integration is a necessary, if not sufficient, condition for peer acceptance (Voeltz, 1980, 1982) and maintenance of social interaction (e.g., Brinker, 1985; Strain, 1983). More recent analyses have suggested that a variety of peer relationships between nonhandicapped children and those with disabilities can be observed (e.g., Haring, 1991; Meyer & Putnam, 1988; Odom & McEvoy, 1988; Strain, 1984). In a 2-year study, Cole and Meyer (1991) reported that children with severe mental retardation in integrated learning environments showed gains in social competence, whereas those in segregated settings did not.

Detailed research findings on peer interactions and acceptance are critical in providing educators with principles to allow integration to be as effective as possible (Giangreco & Meyer, 1988; Giangreco & Putnam, 1991). Furthermore, as the "regular education initiative" (Will, 1986) shifts the focus from integrated school buildings to full inclusion, the need for additional data on social interactions in such settings becomes more crucial. Only by careful documentation of what happens when students with severe disabilities are placed with their age peers in the general education classroom can we understand the variables that may need to be modified in order to achieve the greatest possible ben-

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We are especially grateful to the teachers, administrators, parents, and children of the Johnson City School District, whose cooperation and support made this project possible.

[1] Christine Salisbury, Mary Palombaro, and Tia Hollowood are in the Division of Education, School of Education and Human Development; Ian Evans and Jennifer Berryman are in the Department of Psychology. Requests for reprints should be addressed to Ian M. Evans, Department of Psychology, SUNY-Binghamton, P.O. Box 6000, Binghamton, NY 13902.

efits for all students. The purpose of the present report is to contribute to this documentation.

This study represents the first-year data from an investigation of strategies promoting the inclusion of students with severe disabilities in a general education classroom. The school district in which the program was carried out had some prior commitment to full participation. Their educational philosophies provided a critical backdrop to serving students with severe disabilities in the regular classroom. For instance, there were various supports in the form of collaborative teaming and teaching practices, commitment by most teachers, administrative backing, and policies encouraging the potential of every student (Chambers, 1991). Students with the most severe handicaps, however, were not included until university-based technical assistance was made available. The process that made this possible has been described elsewhere (Salisbury, 1989).

Because inclusion had already been accepted in principle, it allowed the research to focus on strategies that enhance rather than implement mainstreaming. The overall goal of the project is to determine whether elementary schoolchildren, their teachers, and their parents can learn and execute problem-solving strategies that enable students with severe disabilities to be equitably included in the social fabric of the school. The first stage of this research endeavor was to describe the social patterns that were evident after the basic mainstreaming effort had been implemented. What kinds of interactions could be discerned during instructional time in the classroom, and how would students with severe disabilities be accepted by their nonhandicapped peers?

Method

Participants

Eight children, classified as severely disabled, participated in the study. These students are referred to here as the target children. Their ages, level of functioning, and other basic information are presented in Table 1.

Table 1
Student Demographics

Student[a]	Age	Diagnosis	Vineland	Brigance/ EPS Range (months)	ASC[b]
Yune	5;3	Autism	1;4	18–60	21
Jackie	5;4	Multiple	0;2	2–8	13
Tina	5;6	Cerebral palsy	3;0	18–60	54
Dick	7;1	Multiple	1;0	8–48	29
Rob	6;11	Multiple	1;5	12–48	35
Joe	6;2	Multiple	1;4	12–36	29
Suzie	8;5	Multiple	0;5	2–12	18
Mike	8;1	Multiple	0;9	2;8	16

[a] All students classified as evidencing severe or profound disabilities under both New York State and federal definitions.
[b] Total scores on the Assessment of Social Competence; range for nonhandicapped comparison students: 44–71.

Although all of these children's peers participated in parts of the study, a particular subgroup (matched only for gender) was randomly selected to serve as a comparison group. Consent to participate was obtained from all the children's parents or legal guardians. For some analyses special consent was required (e.g., for a student to be photographed) and in a few cases parents did not agree to these procedures. Also, all methods were subject to approval by the school administration. The teachers gave consent to our presence, and all measures used were explained to them before the study began.

Setting

The district, which consists of a high school, a middle school, and two elementary schools, is located in a small manufacturing, predominantly blue-collar town in the northeastern United States. For reasons of accessibility, all young students meeting the criterion of severely/physically handicapped are served in one of the two elementary buildings. At the time of the study, approximately three students with severe disabilities were attending each grade level. These classrooms also contained students with mild disabilities (mild mental retardation, learning disability). Although these latter children received special education services and thus were not excluded from the project, they were not the "subjects" of our research.

Teachers worked in teams, with one special education teacher and a number of aides supporting a cluster of classrooms and general education teachers. For the present report, one kindergarten, two first-grade, and one second-grade classrooms were included, representing two educational teams and eight students with severe disabilities. In-service training had occurred before the project began, but only one special education teacher had prior experience with pupils with severe handicaps. During the first project year training for building staff focused mainly on curriculum adaptations and instructional practices that would increase the participation and inclusion of the students with severe handicaps. Some of these strategies were derived from the Syracuse curriculum (Ford et al., 1989), whereas others were developed by the teachers themselves.

No special suggestions were made to the teachers regarding social interactions, how to develop peer acceptance, or what rules of acceptable play to establish. Thus, the atmosphere, expectations, and structural opportunities for social contact varied slightly across classrooms.

Measurement

Rating of social competence. In order to obtain a measure of their social competence, target and comparison children were rated using the Assessment of Social Competence (ASC) scale (Meyer, Cole, McQuarter, & Reichle, 1990; Meyer et al., 1985). The ASC consists of

11 social functions or competencies, each divided into eight levels of sophistication. The scale permits a relatively limited skill or even an inappropriate behavior to be scored as effective as long as it achieves the essential requirement of a given social function. The ratings of the children were carried out by interviewing teachers and parents, as well as observation of target students; only levels directly observed by one informant were recorded.

Sociometric analysis. This assessment took place midway through the school year so that the children had sufficient opportunity to form friendships and personal preferences. A standard peer nomination technique (Coie, Dodge, & Coppotelli, 1982) was used to discover all children's social standing in their respective classes (McConnell & Odom, 1986), followed by an evaluation of the specific target and comparison children's social status.

First, each nonhandicapped child was individually shown an array of photographs of all children in his or her class whose parents had consented to the activity (approximately 16 children per class). The child was asked "Do you know everybody here? OK, show me who you'd most like to play with." After the child made a selection, that picture was removed and the child was asked for his or her second and then third choice of most desirable playmate. A child's "popularity" score was the total number of first, second, or third place nominations received. We did not ask children to identify the student they would least like to play with (social rejection), since that form of questioning violated principles of acceptance of others that are widely promoted in the district.

Following this procedure, the children were individually shown a smaller array of pictures: photographs of each of the target children in that class, photographs of each comparison child, and one photograph of an additional, randomly selected, nonhandicapped child. They were then asked, for each photograph in the display: "Do you know this child?", "Do you play with him/her?", and "Is this person your friend?" The first question was included only as a validity check of the clarity of the photographs. The numbers of "yes" answers to the other two questions were tallied and converted to a percentage of the total number of respondents (class members) participating.

Three weeks later, four children from each class were randomly selected and the procedure repeated as a reliability check. In first- and second-grade classrooms, the selections made by the students were consistent (they provided exactly the same answers); however, in kindergarten there was less stability, with only 80% of the selections being the same on the two occasions. Initial choices were utilized for the data analysis. A few kindergarten children picked themselves as first choice. When this occurred, they were gently asked to select another child, and this selection was counted as their actual choice.

Classroom observation. Opportunities for interaction occur at many different times and places in school. However, because our research project is concerned with what happens in classrooms, observations focused on classroom behavior in which play interactions are limited but other facets of social relationships occur, such as helping, cooperating, sharing, and verbal exchanges (e.g., criticism, complaints, conversation).

An observational code was developed in order to gather data on the frequency and nature of the interactions between target children and their nonhandicapped peers. This coding system consisted of 11 categories of social interaction. Most of the categories were drawn from the work of Strain and his colleagues on the social ecology of integrated preschool environments (e.g., Strain & Kohler, 1988). We incorporated Brinker's (1985) methodology for observing interaction by differentiating between a social behavior (approach) initiated by a child and behaviors in which the child was the recipient of the interaction. The categories and their definitions are provided in Table 2.

Two master's level professionals (in psychology and education) participated in data collection. Both observers were frequently in the building and were known to the teachers and students. The goal was to obtain a "snapshot" of what was generally happening in the classes, so observation took place for brief periods (about 5 min) a number of times per month, for a total of 15 min per month for each child observed. Observation time was equally distributed across the major instructional conditions of large group, small group, and free time. Since the frequencies of some behavioral categories proved to be small, no attempt has been made to analyze data differentially according to instructional context; however, by including all three, the most commonly occurring classroom conditions were sampled.

The observations consisted of 1-min "sweeps" in which the target child would be observed for 1 min, and then the comparison peer would be observed for 1 min, then the next target child, and so on. Each 1-min sweep was divided into four 15-s recording intervals, during which any instance of making or receiving a social interaction within a given category was recorded. Because social interactions are not typically of such short duration, it was unlikely that there would be more than one discrete instance of a given category within 15 s. Observations were made on a regular basis over a 7-month period, from late fall to the end of the school year. Data from the first 3 months of observation (Phase 1) are compared to those from the second 3 months (Phase 2), with data from the last month, June, being discounted.

Four weeks of training and practice were needed for

Table 2
Social Interaction Categories Coded for Classroom Observation

1. Assistance	Any help provided to another student. May be physical assistance (e.g., helping up from the floor, holding the pencil with them so it doesn't fall), or may be other types of assistance such as getting a book off the shelf, or rearranging materials to make them accessible.
2. Discipline	Any statement that conveys a reprimand, either by tone of voice or vocabulary. This category also includes any physical gesture that is intended to identify to a child that his or her behavior is not acceptable (can include signing "no," taking materials away).
3. Play	Any activity involving materials wherein the primary purpose is not instructional, but is focused on the enjoyment of the participants.
4. Conflict Resolution	Given the occurrence of a dispute between children (argument over toys, whose turn), student makes attempt to resolve the situation by presenting solutions. In addition, this behavior encompasses physical actions that address ending the conflict (e.g., dividing the toys, handing the disputed toy to someone, and actively removing oneself from the dispute).
5. Instruction	Any behavior that involves giving directions to teach a specific skill to another child.
6. Physical Aggression	Any activity such as hitting, punching, kicking, biting, butting with the head, nonplayful push/pull/grab, destruction of another's property, or using materials to harm another (e.g., throwing chairs).
7. Verbal Aggression	Screaming, shouting, name calling, or otherwise derogatory comment directed toward another.
8. Physical Affection	Patting, hugging, rubbing head/arms/etc., kissing or hand holding by a peer.
9. Affiliative Comments	Verbal comments intending to praise ("What a nice job you're doing"), compliment ("I love that dress"), or reassure ("C'mon, I know you can do it").
10. Attention-Seeking Behavior	Those behaviors intended to gain another's attention; may include reaching toward someone, vocalizing toward a specific individual, presenting an object to someone, physically changing body position to be in closer proximity to someone.
11. Talking	All speech directed to an individual that is not subsumed under the categories noted above.

the coders to reach acceptable levels of agreement. Reliability was then monitored by having the two observers code simultaneously for 5% of the subsequent observations. Exact agreement was calculated by the standard formula (agreements minus disagreements, divided by total observations). In the fall, the mean agreement index for all categories and classrooms was 89%; in the spring it was 92.5%.

Results

Sociometric Analysis

Table 3 summarizes the findings from the sociometric analysis. There were large differences between children. Two children with severe disabilities, Tina and Suzie, received the most nominations (selected as the most popular children in their respective classrooms); another target child, Mike, received the second most nominations. However, other target children were not particularly popular, and some received no nominations—which was true for some of the nonhandicapped children as well. Aggregating both the total number of nominations received (ranking within participant group) and overall class ranking provided a composite ranking for acceptance. This acceptance score is the one used in all subsequent analyses.

There was no significant agreement between the acceptance scores and the number of times children were identified by their peers as someone with whom they typically played. For the target group the Spearman rank-order correlation was .64, and for the nonhandicapped comparison group it was .52; neither of these two correlations was statistically significant. The high frequency with which almost all target students were identified as a "friend" may reflect social desirability; peers were more likely to consider children with severe handicaps to be their friends than their playmates. Among typical children, however, the "friend" identification matched very closely the "play with" identification.

Social Competency Ratings

The ASC scores are reported in Table 1. Although there were wide differences among the target children, the differences between them as a group and the nonhandicapped peer group were considerable, ($t_{14} = 5.6$, $p < .001$). One of the students with a severe disability obtained a total ASC score greater than those of two of the nonhandicapped children, but otherwise the ranges for the two groups did not overlap. Students were ranked (within groups) according to total ASC scores, and these ranks were used to examine the relationship between social competence and acceptance. No significant correlation was found, either for the students with severe disabilities (rho = −.05) or for the typical students (rho = .30). However, ASC scores did correlate with total number of social interactions initiated by the target students during both phases of the social interaction observations: rho = .75 for Phase 1 and .87 for Phase 2, both significant at $p < .05$. For the nonhandi-

Table 3
Sociometric Analysis

Social Standing[a]	No. of Nominations	Friends with?	Play with?
Kindergarten			
1. Tina (target)	5	93%	100%
2. Matt (comparison)	5	73%	87%
3. Michael	5		
4. NH peer	5		
5. NH peer	4		
6. Vanessa (comparison)	3	80%	73%
7. NH peer	3		
8. NH peer	3		
9. NH peer	3		
10. NH peer	3		
11. Jonathan (comparison)	2	80%	80%
12. NH peer	2		
13. Chris (MH)	2		
14. NH peer	2		
15. Jackie (target)	1	94%	62%
16. Yune (target)	0	69%	75%
First Grade A			
1. NH peer	7		
2. NH peer	7		
3. Dick (target)	6	94%	71%
4. NH peer	6		
5. NH peer	5		
6. Brenda (comparison)	4	81%	81%
7. Alan (MH)	3		
8. NH peer	3		
9. NH peer	3		
10. NH peer	2		
11. NH peer	2		
12. NH peer	1		
13. NH peer	1		
14. NH peer	1		
15. NH peer	0		
16. NH peer	0		
17. NH peer	0		
18. NH peer	0		
First Grade B			
1. NH peer	8		
2. NH peer	8		
3. NH peer	6		
4. NH peer	6		
First Grade B			
5. NH peer	6		
6. Nicole (comparison)	5	76%	76%
7. NH peer	5		
8. NH peer	3		
9. NH peer	3		
10. Joe (target)	2	100%	78%
11. Russ (comparison)	2	88%	71%
12. NH peer	2		
13. NH peer	2		
14. NH peer	1		
15. NH peer	1		
16. NH peer	0		
16. NH peer	0		
17. NH peer	0		
18. NH peer	0		
19. Rob (target)	0	100%	78%
20. NH peer	0		
21. NH peer	0		
Second Grade			
1. Suzie (target)	7	100%	83%
2. Mike (target)	5	100%	83%
3. NH peer	5		
4. Jennifer (comparison)	4	76%	71%
5. NH peer	4		
6. NH peer	4		
7. NH peer	4		
8. NH peer	3		
9. Jessica (MH)	3		
10. NH peer	2		
11. NH peer	2		
12. Raymond (comparison)	2	76%	54%
13. Kristen (MH)	2		
14. NH peer	2		
15. NH peer	2		
16. NH peer	1		
17. NH peer	1		
18. NH peer	1		
19. Rob (MH)	1		
20. NH peer	1		

[a] MH = student with a mild disability; NH = nonhandicapped.

capped children the correlations between ASC scores and social interactions initiated were negative (rho = −.36 for Phase 1 and −.68 for Phase 2) but not statistically significant. There were no relationships between students' ASC scores and the number of social interactions for which they were the recipients.

Classroom Observation of Interaction

The occurrence of the various categories of interaction are displayed in Figure 1. It can be seen that some expected categories (such as physical or verbal aggression, conflict resolution, and discipline) did not occur with great frequency for either group of students. Other categories were quite common, especially talk and play for the typical students. Target children were most likely to initiate such social interactions as attention seeking and play. There were large and significant differences between the number of initiations and the number received by the target students (t_7 [for related measures] = 4.2, $p < .01$), whereas this was not the case for the typical students, whose interactions were more reciprocal.

Somewhat surprisingly, interactions initiated and received by the students with severe disabilities decreased over time when Phase 1 was compared with Phase 2 (t_7 [for related measures] = 2.6, $p < .05$). The major changes for interactions initiated were decreases in play and attention seeking. In terms of interactions received, the largest decreases recorded were in play, assistance, physical affection, and attention. Because the frequencies of all these categories (except for assistance) among students with disabilities were higher to begin with than those recorded for the nonhandicapped comparison

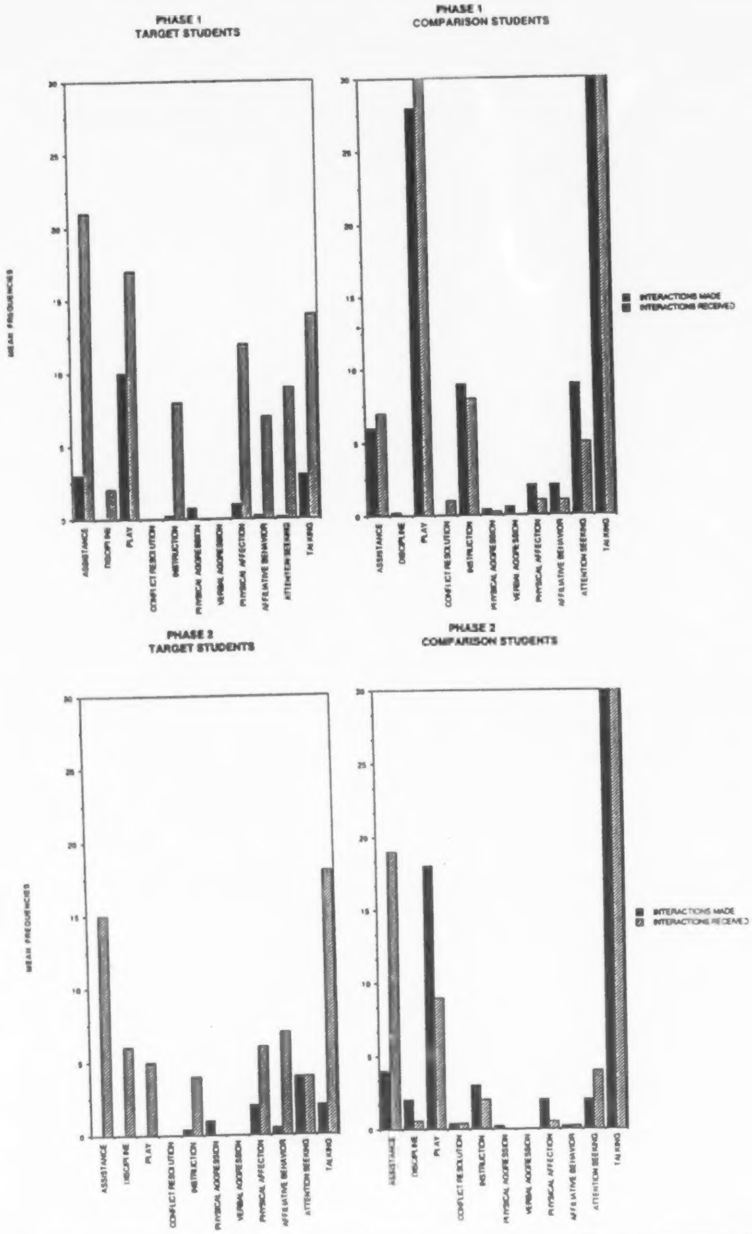

Figure 1. Mean frequencies (number per hour) of 11 categories of social interaction; Phase 1 represents the first 3 months of observation, Phase 2 is the second 3 months.

students, it could be argued that decreases in receipt of interaction is a desirable outcome.

There were large differences within groups in overall levels of interaction, whether positive (e.g., conflict resolution) or negative (e.g., verbal aggression). We conducted Spearman rank-order correlations between total number of interactions and ASC scores as well as acceptance scores. As mentioned already, interactions initiated did correlate with ASC scores; they did not, however, correlate with acceptance scores. For the target students, the correlations between interactions initiated and acceptance were .64 for Phase 1, and .37 for Phase 2; for interactions received and acceptance the rho values were .55 (Phase 1) and .11 (Phase 2). These were all nonsignificant. The correlations yielded by the typical children were lower still and in a negative direction.

Discussion

The most significant finding to emerge from these data was that one cannot generalize too readily about the social status of children with severe disabilities when in regular classroom environments with nonhandicapped peers. Some of the target children were among the most popular in the classes, whereas others received no positive nominations from their peers at all. Students with severe disabilities received many more social interactions than they initiated; although these were invariably positive, they were different from the more reciprocal interactions observed among nonhandicapped students. Over the school year the interactions received by the students with disabilities actually declined. Social competence, as rated by informed adults, did not correlate with acceptance.

To the extent that social standing can be influenced by the student's own social behaviors, it has become customary to propose social skill training for "rejected" children. However, our observations reveal that children with extremely limited formal skills—those with considerable disability—can nevertheless be judged very popular by peers. The child initiating the greatest number of social interactions was the student with severe physical involvement, and whose degree of intellectual handicap is uncertain. She was someone with whom everyone in her class said they played, and she was the most popular student among her peers on the sociometric measure. However, two other students achieved almost comparable social acceptance, despite having severe cognitive handicaps.

It is possible that, when students are so obviously disabled as the target children, they are somehow categorized differently by nonhandicapped children. That is to say, they are not judged in the same way as other peers: for example, they were identified as "friends" even by children who reported not playing with them. Also, children may perceive it as particularly socially unacceptable to interact negatively with peers who are severely disabled. However, negative categories of social behavior were virtually never seen, even among nonhandicapped children.

Observational data revealed that interactions are not of the same types for the two groups of children. A large part of the variance is accounted for by the finding that the most frequent form of interaction in a relatively structured classroom setting is children talking among themselves, and this excluded the target students. During the first part of the year, nonhandicapped students were more likely to assist or show physical affection to the students with severe disabilities. These activities declined by the second half of the year. Unfortunately, however, so did other positive interaction categories (such as play). The most optimistic interpretation of these findings is that, as the year progresses, the "novelty" of the target children wears off. They may be treated in a more natural way, but they also may experience fewer overall interactions. This suggests that communication skills will be critical to sustain classroom interaction, since so much of the social exchange is verbal.

Students with severe disabilities received many more social interactions than they initiated (even the least accepted student, who made no observable initiations during the entire observation period, was not being ignored by his nonhandicapped peers), whereas typical students made and received about the same number of social contacts. Again, this emphasizes that mutual dyadic communication opportunities may be important for promoting more frequent social interactions.

With respect to quality of interactions, anecdotal reports indicate that there were patterns of behavior that might be considered somewhat undesirable from the perspective of ensuring that the social experiences of students with disabilities are equitable. Nonhandicapped children were prone to be affiliative, giving assistance and directing the target children. For example, although relatively few instances were observed of the target children being "disciplined" by their peers, *none* were observed in the case of the peer comparison students. Informal classroom observation indicated that a common form of interacting resembled parenting of the students with severe disabilities. Typical children, usually girls, would interact with the more popular of the target children, helping them, moving them around the room, physically supporting them during group instruction, and so on. Over time, however, these interactions began to change, as reflected by decreases in such categories as assistance and physical affection. There were many nonhandicapped children who interacted in a rather neutral way with the target children, just as there were nonhandicapped children who generally ignored them. This seems to be the natural and desirable outcome: that the target children should experience social interactions, some opportunities for nurturance from other children and friendship, some negative experiences, and some experiences of just being tolerated.

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Mainstreaming During the Early Childhood Years

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ABSTRACT: Issues surrounding the implementation of the integration imperative during infancy and early childhood present formidable challenges to education and community providers. Key among these issues is how professionals provide high-quality services to young children with disabilities in mainstream environments. This article explores current issues related to integration and reexamines the concept of "best practices" as it applies to mainstreaming during the early childhood years. The author recommends an integrated set of indicators for high-quality programs and describes an outcomes-based process for making administrative and pedagogical decisions.

☐ When asked by a visitor what it was like having a child with disabilities in her kindergarten class, young Andrea looked puzzled. The visitor rephrased the question by asking whether the child with disabilities belonged in Andrea's class. Andrea answered, "Of course. He's five, isn't he?"

Andrea's implicit understanding of equity, entitlement, and accommodation have been fostered in an inclusive school context where children without disabilities assume that all classes contain friends with a range of abilities and needs. Why are some programs able to achieve a greater degree of integration than others? The answer lies, in part, in their commitment to the value of inclusion and their ability to incorporate desirable organizational and programmatic practices into complex education contexts.

Many programs across the United States are successfully mainstreaming young children with mild to profound disabilities in typical day-care, preschool, and early elementary settings (Guralnick, 1981; Hanline, 1990; Hoyson, Jamieson, & Strain, 1984; McLean & Hanline, 1990; Odom & Strain, 1984; Templeman, Fredericks, & Udell, 1989; Salisbury, 1989; Salisbury & Syryca, 1990; Strain, 1985). Others, however, face opposition, inaction, and frustration as they attempt to develop integrated school placement options at the local level (Gartner & Lipsky, 1987; Peck, Hayden, Wandschneider, Peterson, & Richarz, 1989).

One reason for these problems may be that although there are considerable data on the outcomes of specific interventions in integrated early childhood programs, remarkably little is known about how to apply this information to mainstreamed settings (Guralnick, 1990). This article focuses on integration during the early childhood years, with specific attention devoted to the notion of how predictors of high-quality programs themselves become integrated into service delivery systems.

INCLUSIVE PRACTICES, SUPPORTIVE SETTINGS

There is an essential, conceptual difference between inclusion and integration that has important implications for pedagogical practice and programmatic reform. Integration is the process by which physical, social, and academic opportunities are created for the child with a disability to participate with others in typical school or community environments (Taylor, Biklen, Lehr, & Searle, 1987). It is assumed that contextual supports are provided to maximize the probability of the child's success in the mainstream environment.

The social-cultural realities of integration are such that one group is viewed as the "mainstream" and one group is not; where one group must "push in" to the activities and settings occupied by the other. When students with disabilities are based in nonmainstream classrooms and

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are "allowed" to be incorporated into specific activities or lessons in mainstream environments, we implicitly endorse a value that says it is permissible to exclude them from age-appropriate placements. While integration is considered to be philosophically and educationally superior to segregation, such "push in" arrangements remain inherently hierarchical and unequal.

Inclusion, on the other hand, is a value that is manifested in the way we plan, promote, and conceptualize the education and development of young children. The underlying supposition in inclusive programs is that all children will be based in the classrooms they would attend if they did not have a disability. Teachers, students, parents, and administrators (in fact all stakeholders) define the school and classroom culture as including children with diverse backgrounds, abilities, and contributions.

In inclusive programs, the diverse needs of *all* children are accommodated to the maximum extent possible within the general education curriculum. Collaborative teaming and teaching, shared planning, transformational leadership, and an outcomes base provide the intentional framework for stakeholder success. Driven by a vision of schools as a place where all children learn well what we want them to learn, schools become creative and successful environments for adults and the children they serve (Chambers, Salisbury, Palombaro, & Cole, 1990; Salisbury, Pennington, Veech, & Palombaro, 1990; Salisbury & Syryca, 1990; Thousand & Villa, 1990).

Preliminary data from the Collaborative Education Project (Salisbury, 1991; Salisbury, Evans, Palombaro, & Veech, 1990) suggest that positive social and academic outcomes accrue to children with and without disabilities enrolled in an inclusive elementary school. The collaborative culture of such a school fosters a heightened sense of equity among peers without disabilities wherein they advocate for the inclusion of their classmates with disabilities and identify solutions to integration obstacles. In addition, building-level leadership is a critical factor in the success of programmatic reform. These data suggest that with proper philosophical, administrative, and instructional supports, young children with mild to profound disabilities can be appropriately based and served in classrooms they would attend if they did not have a disability.

Program policies, structures, and practices must be designed to support the inclusion of young children with disabilities in settings designed for their age peers without disabilities. Whether attending a program full- or part-time, young children with disabilities *should be included in, not integrated into,* age-appropriate mainstream environments. When supplementary aides and supports have been tried and found to be insufficient, then and only then should alternative service delivery options be considered. To maximize the likelihood of success, educators should employ those practices determined to be most directly linked to positive child and family outcomes in mainstream school and nonschool environments.

RE-THINKING THE NOTION OF "BEST PRACTICES"

Professionals in the field of special education often suggest that the way to optimize the likelihood of successful performance in mainstream environments is to implement generally acknowledged "best practices." At least three issues surface with such a proposition. First, use of the term *best* implies no need to get better and gives the impression that a well-defined, rather static corpus of information is accepted by the profession. Although an apparent consensus on a core of quality indicators has been reached by colleagues in early childhood education (Bredekamp, 1987), there is little indication that the same is true in the field of early childhood intervention.

Second, whether commonly cited practices are, in fact, "best" can only be answered on a relative basis and with an empirical grounding. Though convincing data exist to support the efficacy of specific strategies in mainstream environments, the data are insufficient to clearly identify any particular set of practices as "best."

Third, "best practices" in the field of special education have traditionally been generated from the special education perspective (e.g., McDonnell & Hardman, 1988; Meyer, Eichinger, & Park-Lee, 1987). The nature and language of these special education practices communicate a message that what we do is somehow very different from the rest of the early childhood profession. The inadvertent effect may be to create obstacles to collaboration with colleagues in general education where none were intended.

Fourth, perhaps an even more important question is, From which knowledge base or bases should we derive our "best practices"? Researchers have presented arguments in favor of creating one system of education for all children (Gartner

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& Lipsky, 1987; Stainback, Stainback, & Bunch, 1989; Will, 1986). Others have emphasized the importance of basing interventions on the routines, schedules, and activities of typical home and school settings (e.g., Bredekamp, 1987; Bricker & Cripe, 1990; Powell, 1989; Rainforth & Salisbury, 1988; Salisbury & Vincent, 1990). These two initiatives provide a useful benchmark for examining validated practices from mainstream settings at both administrative and instructional levels.

We can no longer assume that "best special education practices" are sufficient for ensuring the meaningful inclusion of young children with disabilities in mainstream contexts. Rather, it seems important that we examine validated practices found to be most directly linked to positive child outcomes in the general education and early childhood literatures and assess their applicability to children with special needs. Only then will we be able to determine what additional, specialized supports will be needed to maximize the probability of the child's success in a mainstream context. Adaptations embedded in the mainstream environment should be only as special as necessary to support children with and without disabilities and ensure educational benefit (Biklen, 1985). One essential question for parents, practitioners, administrators, and policymakers becomes, What does the child, any child, need to succeed?

INDICATORS OF PROGRAM QUALITY

Given the importance of understanding the mainstream environment as a context for integration, it seems appropriate to ask: What are valid and useful indicators of program quality?

Indicators from General Education

Recently, two cogent analyses in the general education literature have addressed this question. Stedman (1987) analyzed the effective schools literature and concluded that the formula typically used for program evaluation could not be substantiated by the research. Using stringent selection criteria, he generated nine broad categories of practices that could be empirically supported by the effective schools research literature. These nine categories and their key indicators included school and classroom practices that were directly related to positive learner outcomes. Each of Stedman's key indicators was supported in a recent, large-scale analysis of the elementary and secondary schooling literature (e.g., Oakes, 1989).

Contending that indicators of school context are as necessary as indexes of student outcomes, Oakes (1989) analyzed the elementary and secondary schooling research literature and identified three global school conditions that were empirically related to student outcomes. Viewed as enabling conditions related to the attainment of high-quality teaching and learning, these three conditions and their key indicators (practices) reflect concrete decisions by schools about how to "distribute resources, what structures to create, and what processes, norms, and relationships to establish at the school" (Oakes, 1989, p. 186). Table 1 represents an integration of Stedman and Oakes' indicators.

These practices may well provide an important benchmark against which we can assess various practices recommended for infants, toddlers, and preschool age children with and without disabilities. The conceptual and developmental underpinnings among these three literatures will clearly vary. However, if we are able to ascertain where significant pedagogical differences do exist, we may then be able to address attitudes and practices that hinder efforts to integrate and include young children with disabilities in typical settings.

Indicators from Early Childhood Education

Guidelines for developmentally appropriate practice in early childhood settings were recently generated by the National Association for Education of Young Children (NAEYC) (Bredekamp, 1987). These guidelines are a blend of empirical and conceptual literatures that provide information on pedagogical practices related to infants, toddlers, and preschool age children without disabilities. Despite the comprehensive nature of these guidelines, the author(s) devoted little attention to the organizational issues included in the Stedman and Oakes analyses. The comparison in Table 1 provides a preliminary index of the commonalities among the two literatures on children without disabilities.

Indicators from Early Childhood Special Education

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TABLE 1
Comparison of Quality Indicators From General and Special Education

General Education	*Early Childhood Education*	*Early Childhood Special Education*
	Curriculum	
Rich program content	Concrete, real, and relevant materials and activities	Functional
Appropriate materials and equipment	Developmentally appropriate	Age-appropriate
		Attuned to current and future needs
Applied, enrichment activities	Integrated content	Integrated content and setting
Cultural pluralism	Values/respects diversity	Values uniqueness of individual
	Adult-Child Interactions	
Success-focused teaching	Facilitates child success	Intentional, concurrent instruction
Teaching to prevent learning problems		Prevention and remediation of learning difficulties
Accepting environment	Accepting and responsive environment	Responsive to learner needs
Engaged time	Facilitated engagement	Optimize engaged time
Student centered	Child initiated and directed	Child and family centered
Integrated supports	Meet diverse needs	Individualized, integrated teaching and therapy
Grouping practices	Age-based groupings	Heterogeneous grouping; role of peers
Clear program goals	Assess for program planning	Assess for program planning
Evaluation of student program progress	Evaluate for curriculum effectiveness	Programming changes based on formative evaluation
	Multiple sources of information	Variety of outcome measures
	Home and School Relationships	
Community and parent participation	Family involvement	Family focus
	Regular communication	Systematic communication
Shared governance among parents and teachers	Role in decisions and planning	Full partners in planning and decision making
	Support to family	Support to family
	Coordinated sharing of information	Transition planning
	Structure, Staffing, and Organization	
Strong leadership		
Well-trained teachers	Properly trained staff	Integrated preparation and experiences
Use of staff and resources	Adequate staff-child ratios	Individualized instruction
Program improvement, professional renewal	Continuing professional development	Professional development required and promoted
Collaborative staff planning, sharing, teamwork	Coordinated sharing of information	Comprehensive, collaborative teaming and decision making
		Parent and professional team membership
Clear building, program, and student goals		Outcome focused; integrated setting
Administrative support		Administrative support
Faculty beliefs about teaching and learning	Staff beliefs about children, families, and learning	Beliefs about children, families, teaching and learning
Positive, supporting school climate	Respect, accept, and value children's actions	Educative approaches; naturalistic teaching

Note: Where no entries are noted, specific reference to indicator was not evident in material reviewed.
Sources: For general education, Stedman (1987) and Oakes (1989); for early childhood education, Bredekamp (1987); for early childhood special education, Gaylord-Ross (1989), Stainback, Stainback, and Bunch (1989), Bricker and Veltman (1990), McDonnell and Hardman (1988), and McCollum and McCartan (1986).

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dren with disabilities, comparisons are limited to the form, rather than function, of these school practices. Given this limitation, what is the relationship of this information to typically cited "best practices" in the field of early childhood intervention? Researchers have described correlates of high-quality, integrated special education (e.g., Gaylord-Ross, 1989; Stainback et al., 1989) and early childhood intervention programs (e.g., Bricker & Veltman, 1990; McDonnell & Hardman, 1988; McCollum & McCartan, 1986). Table 1 depicts these indicators and their relationship to the recommended practices from the early childhood and general education literatures.

Reflections on Quality Indicators

Three observations can be made of these comparisons:

- Recommended practices in early childhood education appear generally consistent with many of the indicators from general education. While the practices related to positive child outcomes underlying these two research bases may be enacted differently, their intent may well be similar.
- Early childhood intervention practices share a general concordance with those in early childhood education. Despite differing theoretical foundations (Odom & McEvoy, 1990), there may be greater consonance in actual practice than typically assumed. Our work, in an inclusive elementary school (see next section) indicates that teaming structures, shared planning time, and a consensus on desired outcomes provides sufficient basis for the resolution of pedagogical differences.
- There were numerous areas of consistency between the early childhood intervention and general education practices.

Insofar as these similarities exist, there appears to be at least a preliminary basis for considering a merger of desirable program practices from general and special education.

ASSIMILATING INDICATORS INTO SYSTEMS

Identifying discrete contextual indicators is an important policy, program development, and research issue (Oakes, 1989), but educators also need to identify effective processes for assimilating this information into programs. Practices, as well as children, must be integrated if we are to effectively meet the needs of all learners in mainstream contexts. The identification of discrete integration strategies is necessary, but not sufficient, for the development of an inclusive school and classroom climate. These validated strategies must be integrated into a framework that provides both process and outcome guidance for those wishing to initiate educational reform. Such a framework exists in outcome-based education programs.

Outcomes-Driven Developmental Model

For the past 5 years, the Johnson City Central School District in New York has provided administrative and school supports to ensure the "reintegration" and inclusion of students with mild to profound disabilities in age-appropriate, elementary school classrooms (Salisbury, 1989; Salisbury & Syryca, 1990; Salisbury, Pennington, Veech, & Palombaro, 1990). The district's nationally validated Outcomes-Driven Developmental Model (ODDM) (Mamary, 1985) incorporates many practices endorsed in the effective schools literature, yet embeds these practices within an organizational framework of outcomes-based education (Blum, 1985; Purkey & Smith, 1983). Figure 1 shows this model and the breadth of contextual supports available for all faculty and students in the district.

A key feature of ODDM is the decision-making model used at the classroom, building, and district levels. The model presumes that only when staff and administrators have reached consensus on the outcomes they want for all children can they examine enabling practices, beliefs, and knowledge for their role in helping to attain those outcomes. At the heart of this model is the consensually derived vision to which all stakeholders in the school aspire. Figure 2 shows the components of the decision-making model.

Application to Integration

The following is a summary of how this model may be applied to the development of high-quality practices in mainstream settings.

What do we want? Yogi Berra once said, "If you don't know where you're going, you probably won't get there." Sound planning is predicated on what one wishes to achieve. At the Harry L. Johnson Elementary School, teachers, aides, parents, children, and building support staff have

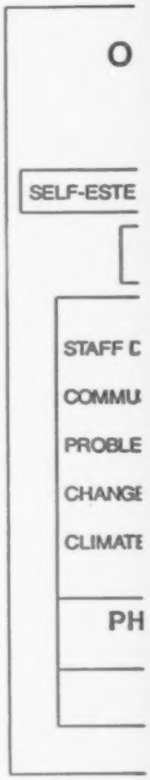

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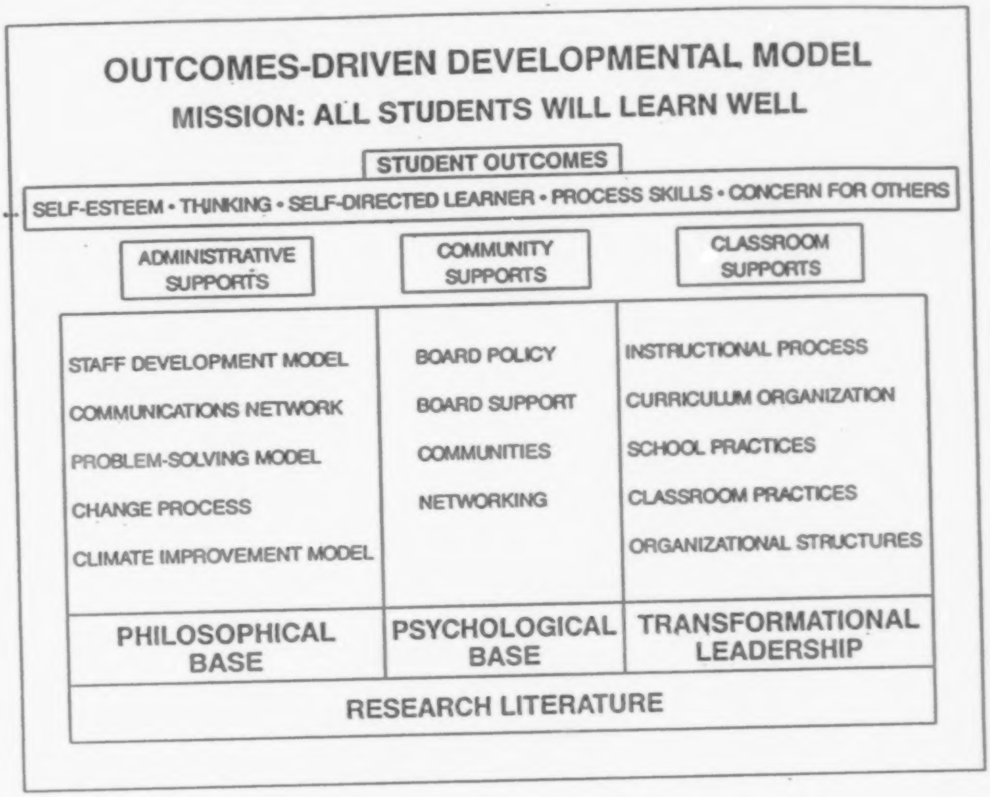
FIGURE 1
Components and Organization of the Outcomes-Driven Developmental Model


OUTCOMES-DRIVEN DEVELOPMENTAL MODEL
MISSION: ALL STUDENTS WILL LEARN WELL
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SELF-ESTEEM • THINKING • SELF-DIRECTED LEARNER • PROCESS SKILLS • CONCERN FOR OTHERS
ADMINISTRATIVE SUPPORTS
COMMUNITY SUPPORTS
CLASSROOM SUPPORTS
STAFF DEVELOPMENT MODEL
COMMUNICATIONS NETWORK
PROBLEM-SOLVING MODEL
CHANGE PROCESS
CLIMATE IMPROVEMENT MODEL
BOARD POLICY
BOARD SUPPORT
COMMUNITIES
NETWORKING
INSTRUCTIONAL PROCESS
CURRICULUM ORGANIZATION
SCHOOL PRACTICES
CLASSROOM PRACTICES
ORGANIZATIONAL STRUCTURES
PHILOSOPHICAL BASE
PSYCHOLOGICAL BASE
TRANSFORMATIONAL LEADERSHIP
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achieved consensus on a vision of inclusive education (Chambers, et al., 1990). The vision is the beckoning target to which all staff dedicate their efforts; it serves as a source of motivation, guidance, and renewal. Specific, measurable outcomes help index progress toward the attainment of that vision. The outcomes agreed to by staff in this district (see Figure 1) are among those described as quality indicators by Oakes (1989) and others.

Collaboration at the district, school, and classroom level helps ensure that actions are directed toward the attainment of shared goals. The processes for collaborative decision making are available in the leadership (e.g., Bennis & Nanus, 1985) and general education (e.g., Purkey & Smith, 1983) literatures and have recently emerged in special education (e.g., Bauwens, Hourcade, & Friend, 1989; Pearpoint, 1989; Pugach & Johnson, 1989; Thousand & Villa, 1990).

What do we know? This information is used to assess the validity of current policies and practices and serves as a source of information for developing the belief base. If, for example, staff believe that individualized instruction or family-focuses practices are important for attaining desired outcomes, then literatures from a variety of disciplines may need to be reviewed to ascertain what specific practices will most likely promote desired child and family outcomes. Knowledge of validated practices can then be used to evaluate current program practices. In the process, poli-

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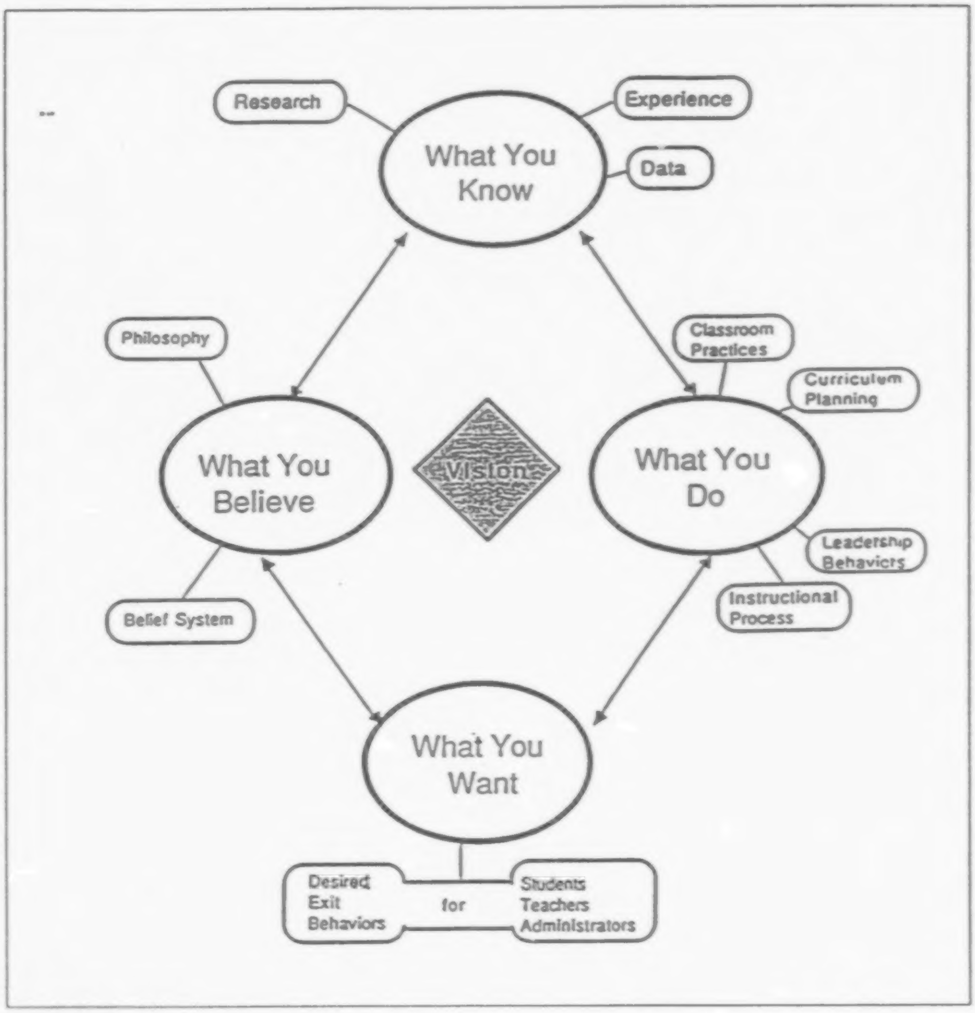
FIGURE 2
Vision-Based Decision-Making Model


Research
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Data
Philosophy
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Curriculum Planning
What You Believe
Vision
What You Do
Leadership Behaviors
Belief System
Instructional Process
What You Want
Desired Exit Behaviors
for
Students
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cies that constrain and/or foster the use of desirable practices will also become evident. In some cases, staffing patterns will need to be changed to support the attainment of desired outcomes.

What do we believe? The staff in the district developed consensus around 10 beliefs related to excellence in teaching and learning. Among these beliefs were a commitment to cooperative teaching and learning, inclusive programs, and criterion-referenced learning. Because there is an interaction between values and beliefs grounded in knowledge, staff members arrived at consensus using many sources of information (e.g., experience, research literature, and philosophy). Once faculty commit themselves to a set of beliefs, it is easier to distinguish future criticisms of practice from faltering beliefs.

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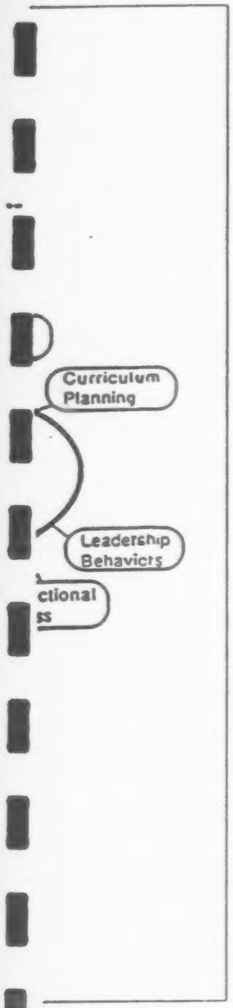

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Reaching consensus on accommodations for children with disabilities sometimes raises philosophical, as well as logistical, issues (Salisbury, & Syryca, 1990; Salisbury et al., 1990). Individualized instruction in mainstream settings necessitates joint planning and a shared commitment to the inclusion of children with special needs. It is unlikely that all staff will share an equal level of commitment to inclusion or integration, but all should have shared in the process of reaching consensus on outcomes and beliefs. It is, therefore, appropriate and reasonable to expect that all staff will support the implementation of program practices to promote those outcomes. Salisbury and Bricker (1991) suggested that only when administrators and staff move from action based on compliance to action grounded in commitment will current barriers to program quality be substantively addressed.

What do we do? In other words, is what you are doing getting you what you want? It may be that some practices must be abandoned, others improved, while still others have yet to be incorporated. The teaming structures, master schedule, and nature of instructional activities have changed at Harry L. Johnson Elementary School as we have assessed these practices and supports against the outcomes (e.g., inclusion, concern for others) we want for all children in this school.

CONCLUSION

Program quality is largely based on the extent to which knowledge, beliefs, and practices are aligned to produce desired outcomes. Collaborative research and program models are needed to ensure that all children benefit from integrated opportunities in their neighborhood communities. The decision-making model described here builds on many factors that are empirically linked to positive child outcomes and has been effective in developing internally consistent program practices. As such, it may well prove useful to those who are facing the challenges of developing and implementing integrated and inclusive programs in community-based, early childhood setting.

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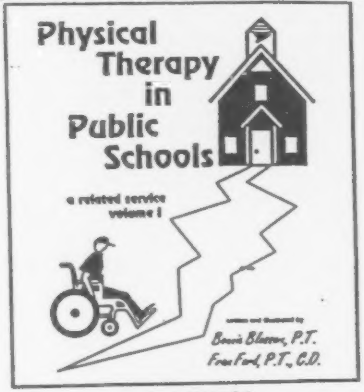

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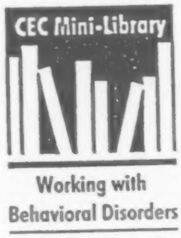

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Parents as Team Members

Inclusive Teams, Collaborative Outcomes

Christine Salisbury

CHILDREN WHOSE PARENTS ARE INVOLVED in their education experience more success in school than students whose parents are not as involved (Epstein, 1987; Guralnick, 1989; Powell, 1989). Given the contributions that parents can make toward their child's achievements, it is important that professionals create a variety of ways in which parents can be meaningfully included in their child's education (Shevin, 1983; Vincent, Laten, Salisbury, Brown, & Baumgart, 1980).

Under current federal laws, decision making is clearly the prevailing form of parent participation on an educational team. While the inclusion of parents on such teams is acknowledged in the educational (Turnbull & Turnbull, 1986a; Turnbull & Winton, 1984) and related services (Bazyk, 1989; Campbell, 1987; Carney, 1987; Rainforth & York, 1987; Salisbury, McLean, & Vincent, 1990) literatures, much of what transpires during team meetings does not meaningfully include parents in the decision-making process, nor yield collaboratively derived outcomes. This point becomes critical when parents are expected to support decisions of the team that directly affect the family as well as the child, such as recommendations for how to carry over activities into the home or what goals will be addressed first.

Over the past century a number of role changes have emerged for parents of children with disabilities. Parents have moved from being perceived as the source of their child's problems to more proactive roles as service developers, learners, teachers of their child, advocates, and educational decision makers (Summers, Behr, & Turnbull, 1989; Turnbull & Turnbull, 1986a). Unfortunately, in our zealousness to create

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more substantive roles and responsibilities for parents within the educational context, we have forgotten the primary role of these individuals—parents as family members. Parents' abilities to function effectively as integral members of a transdisciplinary team will, in large part, be mediated by a variety of other factors, principally their responsibilities to their child and family. Failure to acknowledge and address these factors in the design and development of educational programs and policies will minimize the willingness and ability of parents to participate, and hamper the development of collaborative home-school relationships.

The link between home and school is an essential one that can be optimized when professionals understand how families function and how to match programs with family needs. Dunst, Trivette, and Deal (1988) noted that the mismatch between what professionals and families see as needs can create conflict, and can result in families failing to follow professionally prescribed intervention programs. Specifically, they suggest that:

> what may be viewed as either oppositional or apathetic behavior may have less to do with contempt for professional opinion and more to do with lack of consensus regarding the nature of the presenting problem, the need for treatment (medical, educational, therapeutic), and the course of the action that should be taken. (p. 3)

It is therefore incumbent upon professionals to engage in a consensus-building process within the team and acknowledge the acceptability of differences among families, and between professional and parent agendas.

The purposes of this chapter are threefold: first, to briefly review the rationale for parent/family participation in the educational process; second, to identify factors that affect parent participation; and finally, to describe guidelines and strategies for including parents as transdisciplinary team members.

WHY SHOULD PARENTS BE INVOLVED?

Legal Basis for Participation

Public Law 94-142 stipulates that parents be afforded the opportunity to actively participate in planning for their child's educational program and that such participation be as an equal member of the individualized education program (IEP) planning team. Turnbull and Turnbull (1986a) cited a policy interpretation of IEP requirements prepared by the Office of Special Education, U.S. Department of Education. This policy statement clarifies the expectations for state and local educational agencies related to the inclusion of parents in the decision making process:

> The parents of a handicapped child are expected to be equal participants, along with school personnel, in developing, reviewing, and revising the child's IEP. This is an active role in which the parents (a) participate in the discussion about the child's need for special education and related services, and (b) join with the other participants in deciding what services the agency will provide the child. (Turnbull & Turnbull, 1986a, p. 226)

Parent participation on teams and in the educational process is a priority. Compliance with legal and legislative requirements should be the last reason we choose to include parents. Rather, the most defensible arguments are based on a commitment to a set of values, principles, and practices that compel us to include parents because it is good for children, families, and schools.

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While there is a clear mandate requiring the active participation of parents in the IEP process, problems with interpretation of these regulations have hindered implementation efforts. Research on the nature of parent involvement in the IEP process since the passage of Public Law 94-142 indicates that participation has, in reality, been passive rather than active (Goldstein, Strickland, Turnbull, & Curry, 1980; Lynch & Stein, 1987; Turnbull & Turnbull, 1986a). These studies indicate that in at least half of the cases cited IEPs were completed by the staff prior to meeting with the parents and that parents had little knowledge of the content of the IEP document. For the parents, "participation" in these cases meant listening to professionals and approving the IEP already prepared for their review. Such practices are clearly inconsistent with the intent of the legislation.

Findings of limited participation may also be linked to the reality of who actually attends the IEP meetings and how professionals view the involvement of parents. In a study by Scanlon, Arick, and Phelps (1981), the special education teacher and the mother attended the IEP meetings 75% of the time, whereas professionals from other disciplines attended only about 30% of the time. It clearly becomes difficult to function as a "team" when attendance disparities such as this exist. Other research indicates that school staff often rank parent contributions as less important than their own (Gilliam & Coleman, 1981; Morgan & Rhode, 1983; Yoshida, Fenton, Kaufman, & Maxwell, 1978), or view the involvement of parents as an encroachment on the school's area of expertise (Allen & Hudd, 1987).

Recent federal legislation in the field of early intervention significantly broadened the scope of responsibilities for professionals working with infants and toddlers who are at risk for developmental disabilities or who evidence handicapping conditions. The Individuals with Disabilities Education Act Amendments of 1991 (Public Law 102-119) and its predecessor (Public Law 99-457) amended Public Law 94-142 to create Part H, the Program for Infants and Toddlers with Handicaps. This law requires each state to develop a state-wide system that includes provisions for addressing all required components of the law. A multidisciplinary evaluation and an individualized family service plan (IFSP) are among the required components of Part H.

Conceptually similar to the IEP, the IFSP is a central component in the implementation of Part H and, therefore, must be addressed by professionals at the direct service level. However, the focus of services under Part H is on the capacity of families to meet the needs of their infants and toddlers, making it necessary that teams become family centered, rather than solely child focused in their orientation. Walsh, Campbell, and McKenna (1988) pointed out that the IFSP, like the IEP, is based on information derived from a multidisciplinary assessment of child and family needs, and includes an assessment of family strengths and needs.

However, professionals working with infants and young children with disabilities are generally poorly prepared to develop quality IEPs and IFSPs, and few outside the field of social work and psychology have adequate preparation in working with families (Bricker & Veltman, 1990; Simeonsson & Bailey, 1990). The lack of professional preparedness jeopardizes the integrity of the program planning process and the validity of the process outcomes from the outset. The challenge facing professionals is how to acquire the skills necessary to ensure that the outcomes of planning and service design are socially, as well as educationally, valid.

Conceptual and Research Bases for Participation

Children do not exist in isolation. They function as members of interdependent systems within the family, school, and community. Within each system exist forces and supports that influence the child's behavior both within and among a variety of environments (Bronfenbrenner, 1979; Minuchin, 1974). Placing the child within an ecological context, it then becomes clear that the child's performance in school will be affected, in large part, by what transpires at home. Parents are the only ones who will be able to contribute information about the values, priorities, and supports available within the home environment. Because research indicates that parents are reliable sources of information (Beckman, 1984; Gradel, Thompson, & Sheehan, 1981), the formulation of ecologically valid and educationally functional goals is logically dependent upon the participation of parents in the planning and decision-making process.

Home and community environments represent important natural contexts where children with developmental disabilities will need to demonstrate skills acquired at school. If professionals are to adequately prepare students to successfully function in future environments (Brown, Nietupski, & Hamre-Nietupski, 1976; Salisbury & Vincent, 1990; Vincent, Salisbury, Brown, Gruenewald, & Powers, 1980), they will need to teach students in such a way that skills can be effectively generalized to settings beyond the school context. An ecologically grounded, home- and community-referenced curriculum provides information on those natural contexts that professionals can then use to develop appropriate intervention strategies (Rainforth & Salisbury, 1988; Salisbury et al., 1990; Snell, 1987; Vincent, Salisbury, Strain, McCormick, & Tessier, 1990).

Research across the age span provides evidence of the importance of the home environment for the cognitive, emotional, and physical development of the child. The early childhood literature, in particular, reveals that the quality of the home environment, the parents' interaction styles, and the experiences provided during the early years each play a role in the development of the young child (Barnard & Kelly, 1990; Greenspan, 1990; Guralnick, 1989; Sameroff & Fiese, 1990; Silber, 1989). Research with school-age children and their families has produced similar findings. Work by Mink and colleagues (Mink, 1986; Mink, Nihara, & Meyers, 1983; Nihara, Mink, & Meyers, 1981), as well as others (Greenspan & Budd, 1986), provides additional evidence of the continuing effects of family influence on the achievements and adaptive competence of children with disabilities.

There are at least two significant trends emerging from recent empirical and conceptual work in the field of special education and related services that have implications for the parent as team member. First, while there are considerable data to support the efficacy of didactic (adult-initiated and -directed) interventions using parents as "therapists" or "teachers," there is also evidence to support the efficacy of ecologically based intervention strategies that deemphasize the direct instruction role for parents. These data indicate that children learn well when adults capitalize on child-initiated activities. Activities selected by the child, rather than the parent, are inherently motivating to children and create opportunities in which adults can reinforce

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and extend important skills within naturally occurring routines in ways that minimize the role of "teacher" or "therapist" (Bazyk, 1989; Bricker & Cripe, 1989; Bricker & Veltman, 1990; Lucca & Settles, 1981; MacDonald & Gillette, 1986; Mahoney & Powell, 1988; Rainforth & Salisbury, 1988; Salisbury et al., 1990; Vincent, Salisbury, Laten, & Baumgart, 1979; Warren & Kaiser, 1986). By emphasizing the value of incidental teaching, it is possible to preserve the primary role of parent while helping the parents promote their child's development.

Second, ecologically based intervention programs have the potential of preserving and strengthening the positive reciprocal qualities of parent-child relationships that can otherwise be impaired when the parent is placed in a more directive role of "therapist" or "teacher" (Bazyk, 1989; Humphry, 1989; Seitz & Provence, 1990; Simeonsson & Bailey, 1990; Summers et al., 1989; Turnbull & Turnbull, 1986b; Tyler & Kogan, 1972). By vesting the control for the interaction with the child and encouraging parents to interact with their child "naturally," it is possible to minimize some of the frustrations, stress, and resentment that can occur when the parents feel pressed to "make progress" with their child (Bazyk, 1989; Turnbull & Turnbull, 1986b).

Recently, the American Occupational Therapy Association (AOTA 1989) recommended that parents be given the freedom to determine the extent and nature of their involvement in therapy and home activities (Bazyk, 1989). Altheide and Livermore (1987) reported that the American Speech-Language-Hearing Association (ASHA) has highlighted the importance of giving consideration to the needs of families in the development of communication systems. According to the authors, ASHA goes further by endorsing the inclusion of families on the interdisciplinary evaluation team. Positive parent-child relationships are viewed by these two professional organizations as an important outcome of therapy with the child.

Beyond the conceptual, empirical, and legal arguments for parent inclusion lie the practical realities that parents serve as long-term advocates and supports to their son or daughter. Because team membership is subject to change on a frequent basis, parents provide a source of continuity essential for smooth transitions during and after the school years. This continuity becomes critical during the postschool years as young adults become "integrated" into a variety of residential, vocational, and leisure environments.

Without question, parents have influenced the course of educational policy in this country more than any other group. While their contributions have been incorporated and valued at both the state and federal levels, it is ironic that parent involvement and inclusion in local program planning remains an area of some concern.

FACTORS AFFECTING PARENT PARTICIPATION

If teams of professionals are to move beyond compliance to commitment and the meaningful inclusion of parents as equal team members, it will be necessary for all school personnel to recognize those policies and practices that function as barriers to parent inclusion. This section briefly reviews some of the key factors that parents and professionals identify as influences on the quality of home-school relationships. The factors highlighted here are drawn from collaborations between myself and colleagues (Salisbury, 1987; Salisbury & Evans, 1988; Salisbury, Vincent, & Gorrofa, 1987; Salisbury et al., 1990; Vincent et al., 1990), as well as from studies by others in the fields of special education and related services (e.g., Altheide & Livermore, 1987; Bazyk, 1989; Carney, 1987; Cutler, 1981; Epstein, 1987; Humphry, 1989, Lynch & Stein, 1987; Turnbull & Turnbull, 1986a; Walker, 1989; Warren & Kaiser, 1986). The following examples are not intended to be exhaustive.

Communication

Difficulties often arise when parents and professionals are not able to communicate effectively, either in person or through written correspondence. The two most obvious points of difficulty relate to: 1) what is communicated and, 2) how it is communicated. Communication problems between home and school may arise because of one or more of the following factors:

(1) Communications are not in the parents' primary language (sign or non-English). Clearly, if professionals do not provide translators or bilingual services for both written and personal communications, the likelihood of parent participation will be significantly reduced. When professionals cannot ensure that parents comprehend the information presented, then parents cannot provide either informed consent or effective support to teachers or their children.

(2) Professionals use jargon. Using terms that someone does not understand functionally excludes that person from the conversation. Many excellent recommendations and thoughts become lost when they are obscured by terminology that is foreign not only to parents, but often to other members of the team as well. Using "plain English" enables everyone to be included in the conversation.

(3) Parents may have limitations. If parents have intellectual or physical limitations, they may not be able to comprehend the newsletters, notes, and notices from the school and/or may not be able to respond to inquiries. This point is particularly critical as it relates to the IEP process. In order for consent to be "informed," professionals must ensure that the information in forms and notices associated with the IEP process is fully understood by the parents (Shevin, 1983; Turnbull & Turnbull, 1986b). This may require follow-up telephone calls, face-to-face reviews, and/or alternative versions/modes of imparting important information. It should be noted that many literate and well-educated parents find it difficult to understand the jargon-laden letters from school about their rights and protections in the IEP process. It is imperative that administrators demystify both the proceedings and the material to ensure what Shevin (1983) refers to as "informed participation."

(4) Professionals limit communication to administrative tasks. Research in both general and special education indicates that professionals most often communicate with parents to report academic progress, send home information, and report behavior problems. Parents of children in early intervention classes and primary grades report that professionals share positive information about their child, but the nature and frequency of this sharing, as well as the amount of parent involvement, appears to decline sharply as the child moves through the school grades (Epstein, 1987; Salisbury & Evans, 1988). Parents need to hear what their child is doing well just as much as they need to hear about the problems.

(5) Interpersonal communication skills may be ineffective. Turnbull and Turnbull (1986a) provided a cogent description of nonverbal communication skills and

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their effects on parent–professional interactions. (The reader is referred to the chapter in that text for more detailed information.) Conceptually, the words professionals use are only one small piece of the communication interchange. Nonverbal actions and the paralinguistic features (tone, emphasis, timing) of what is said are equally important in communication with parents and other team members. The sum of both verbal and nonverbal elements of the message can facilitate or hinder contributions from others.

Parents may be ineffective in getting their messages across to professionals for a variety of reasons. For example, parents may be imprecise in their choice of words, making it difficult for others to grasp their message; they may be tense and angry if they perceive their contributions are not valued by others in the group; they may be demanding in their tone and/or actions if their history with professionals has taught them that such behavior was necessary to get appropriate services for their child; or they may be noncommunicative because they are intimidated by the size and composition of the team. However, it is the professionals', rather than the parents', responsibility to ensure that parents are heard empathetically and that they are afforded meaningful participation.

Perceptions, Attitudes, and Values

How team members perceive themselves and each other, the attitudes they bring to the team meeting, and their own personal and professional value systems all play an important role in interpersonal interactions. Consequently, if we attempt to foster opportunities for meaningful parent and family inclusion in the educational process, it will be important for all members of the team to be aware of how these factors affect both the process and the outcomes of the interactions. The following are some of the key "blocks" to effective interactions with parents and other family members.

Insensitivity to Differences Among Families It is important for professionals to understand how families differ and what the implications of these unique characteristics are for home-school relationships. Families differ in membership, structure, ideology, culture, beliefs/values, and resources. Recognition of these unique qualities is a necessary prerequisite to effective inclusion of parents as team members. The demographics of America's families are changing, which, in turn, can affect the involvement of parents in the school context (Vincent & Salisbury, 1988). Professionals can no longer assume that every family is headed by two parents, that English is the primary language, that school is the highest priority for families, or that the child's parents are necessarily the decision makers in the family unit. The family's cultural beliefs will similarly affect their views of education and the manner in which they choose to participate in the educational process. Additionally, it is important to recognize that families' resources are different and they will mobilize their resources to address *what they perceive* to be the most important priorities first (Dunst et al., 1988; Geismar, 1971). Parents will act to stabilize and meet the family's needs for survival before they will concern themselves with school-valued agendas (Epstein, 1987). Because the structure, resources, and functions within a family change over time, programs need to accommodate to these changes and create options that are both flexible and responsive to the changing priorities and needs of children and their families. Extensive discussion of family characteristics is beyond

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e scope of this chapter. The reader is referred to the works of Turnbull, Dunst, Bailey, and/or Vincent for additional information on this topic.

Parents Viewed as Adversaries Rather Than Partners Our perceptions of others are affected by our experiences, values, nd beliefs. When the values and priorities f professionals conflict with those of parents, tensions may surface and effective ommunication becomes difficult. When e goals of professionals do not apparently match those of parents, some professionals move to judge the parents as omehow less effective or caring. It is counterproductive to the development of a collaborative relationship to assume that, ecause there is a difference of opinion, arents do not have the best interests of their child at heart. The goals of collaboration are better served by trying to understand what motivates parents to respond as they do and how professionals can work effectively with parents to identify the information necessary to address mutually alued goals and priorities.

Parents Viewed as Less Observant, Perceptive, or Intelligent Than Professionals There is a critical need to "elevate" the status of parents in the eyes of professionals. Research by Gilliam and Coleman (1981), coupled with observations of professionals in the field (i.e., clinical wisdom), highlights the fact that many dministrators and practitioners do not alue the input of parents in the planning process. Examples include completing the EP prior to the meeting, failing to provide trategies so that parents can participate, making condescending or judgmental statements when parents do make contributions, and displaying an "aura" of pre-eminent professional knowledge. Each serves as a deterrent to parent participation in the educational process. Data from research by Bricker and others indicate that parents are accurate assessors of their child's abilities and that their contributions can be extremely valuable in the program planning process (e.g., Bricker & Squires, 1989).

Parents' Priorities and Expectations Not Matching Those of Professionals Priorities and expectations surface at different points in the parent-professional relationship. The personal needs of the parent, child, and/or family may displace or reduce the parents' involvement in school activities. Parents must allocate finite time and energy in ways they feel best meet individual and family needs. Parents' capacity for involvement fluctuates over time and is best addressed by the development of a flexible array of program options.

The notion of creating an array of program options for parent involvement is not new, but its importance cannot be overemphasized (MacMillan & Turnbull, 1983). Parents, not professionals, must be the ones to choose whether, how often, and in what capacity they will be involved in their child's program. The fact that the law requires that parents be afforded the opportunity to be actively involved in the decision-making process does not mean that parents must be actively involved. Ultimately, parents must make the decision about involvement. Schools and programs are responsible for ensuring that the decision is an informed one.

Parents may hold markedly different views about the nature of their involvement in the educational process. Some may wish only to receive the school newsletter, others may choose to attend occasional meetings at school, and still others may wish to serve as officers in the parent–teacher organization or as members of the school board. There is growing concern in the field of special education that parent

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participation is being viewed as an obligation, rather than a right (Allen & Hudd, 1987). We must remember that parents have the right to decide what is most important for them, their child, and their family. Parents may decide on minimal levels of involvement. As long as this choice is an informed one, professionals should respect whatever decision parents make. At the same time, professionals need to recognize that needs and priorities change over time and parents may elect different levels and types of involvement at different points in their child's life. Schools therefore have an obligation to promote the inclusion of parents and families on a continuing basis by offering a range of flexible involvement options throughout the school years.

How professionals and parents view their respective roles and responsibilities will directly affect the decision-making process and its outcomes for the team. Specifically, if parents see their role as primarily parents, family providers, and family "stabilizers," whereas professionals see parents as teachers or therapists of their children or more active participants in school-sponsored activities, then there is a mismatch in the respective "pictures." In such cases teams must then discuss priorities and expectations. Because decisions are needed throughout every phase of the child's education, parents can, and should, be afforded the opportunity for participation at all points throughout the educational process. Other chapters in this book describe specific opportunities and strategies for involving parents.

Finally, while parents and professionals frequently agree on the needs of children with disabilities, they may, from time to time, differ in their goals or expectations for the child. There are at least two types of disagreements I have seen emerge over time. The first involves *conflicting timelines*. For example, parents may propose a goal that they see as attainable in the short run, one that would promote more positive interactions or reduce caregiving responsibilities (e.g., intelligible communication or independent toileting). Professionals on the team may concur that such goals are desirable, but may propose supporting them as long-term, rather than short-term, goals. The reluctance of professionals to identify these goals as short term may reflect: 1) a hesitation to commit to something they are not sure they can achieve given the limits of therapeutic or instructional intervention, 2) a different appraisal of the child's capabilities, and/or 3) a different set of instructional priorities for the child. Parents and professionals should be encouraged to share their differing perspectives and work toward consensus.

A second type of disagreement can emerge when parents place a priority on a goal that professionals see as minimally related to the child's educational program. Such disagreements arise because of *discrepant agendas*. For example, the family may express an interest in having a child with significant speech and language difficulties learn the family's native language, whereas professionals may place a priority on production of four-word utterances that incorporate proper syntax. Family-valued goals, while perhaps not immediately related to the child's assessed needs, must be given consideration in the development of the IEP/IFSP. "School-valued, school generated" goals may or may not be important to the family. When they are not, professionals should not be surprised at overt or covert lack of commitment or follow-through from families (Dunst et al., 1988). To the extent that parents are provided meaningful vehicles for input into the development of program activities (both in-

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structional and noninstructional), there will be an increased probability that the content will be socially and educationally valid, and that implementation will be supported by family members.

Professional Constraints Professionals may experience both professional and logistical constraints that affect their ability to be effective team members. They may feel pressured to "have all the answers" when they do not. Since many children with disabilities present complex diagnostic and educational challenges for professionals, it is neither realistic nor appropriate to expect that one discipline will possess all the information necessary to assess and remediate a child's learning difficulties. In addition, to take such a myopic view can convey competitiveness, "turf protection," and/or individualistic agendas. These messages are counterproductive to a cooperative team process and implicitly constrain opportunities for collaboration with other members of the team.

Professionals may also experience time constraints. Some professionals belong to several teams, or serve on one team that has responsibility for students in many buildings. Consequently, it is difficult to be in several places at one time and relate effectively to individuals in each of those settings in which contact is episodic. Similarly, the ability to organize and manage the scheduling, service delivery, and evaluation elements across teams or sites can make teamwork itself a significant stressor for professionals. Thus, it is important for professionals to be aware that role and time constraints can affect their attitudes, perceptions, and interactions with others.

Logistical Difficulties

Parent attendance at team meetings will be affected by availability of child care and transportation, as well as scheduling of the IEP meeting. For example, if a mother cannot find or afford child care during the day and must bring small children along to a meeting, she may consider the effort too great compared to the meager amount of input she is given in the decision-making process. If, however, she knew that there would be child care provided at the school and that her input was sought and valued, she might reconsider the amount of time and effort that would be involved to get herself and her young children to the meeting. Each of these logistical factors are described in greater detail by Turnbull and Turnbull (1986a). Similarly, the extent to which fathers participate will be affected by these and other logistical factors (Vadasy, 1986).

Parent involvement is also affected by the dynamics of the team meeting—that is, how it is conducted and who is in attendance. Specifically, if the meeting is set in a formal conference room with the parents seated opposite a table of professionals, the parents will likely be intimidated and reluctant to contribute. If the process at the meeting involves a "round-robin" sharing of formal assessment results rather than an informal discussion of expectations and needed supports, the parents are also less likely to contribute actively to the discussion. This process is exacerbated by the number of professionals attending the meeting. Thus, by taking the perspective of the parents, it is easy to understand their reluctance to attend, much less contribute to, a meeting where they perceive themselves as "outnumbered" by a plethora of professionals. Finally, if the program planning meeting is one of 10 for the day, scheduled for 20 minutes each, it is likely that parents will sense that the process is *pro forma* and that their "participation" is merely required to rubber stamp the planning document. It is important that profesals realize the impact of such factors, ly or in combination, on the nature their relationships with parents and ilies.

BEYOND PARTICIPATION . . . TOWARD INCLUSION AND COLLABORATION

If parents and family members are truly thought of as equals on the transdisciplinary team, then our actions toward them should be the *same* as those toward our professional colleagues. But are they? If we use the research literature on parent participation as a source of exemplars, and reflect on the way we, as professionals, typically interact with our colleagues (see Table 3.1), our differential treatment of parents as team members becomes graphically apparent. Because these examples are drawn from the literature on preschool and school-age students, generalization to the birth to 24-month age range (IFSP team situations) may not be appropriate. For many professionals, however, this exercise helps illustrate areas in which current practices do not foster inclusive team relationships.

Programs based upon a belief of inclusion go beyond the invitation to parents for "participation" in mandated activities such as IFSP or IEP meetings. Rather, inclusive schools and teams commit themselves to the development of collaborative home-school relationships that are longitudinal in nature, allow for fluctuating and flexible interactions across the school years, and respect the unique qualities and abilities of each participant and their contributions to the team process.

Based upon the literature and constructs described in the preceding sections of this chapter, it is now possible to generate a preliminary list of promising practices to

Table 3.1 Differential interactions with colleagues and parents

With my colleagues, I . . .	With parents, I frequently . . .
Take no action without first soliciting their input.	Complete the IEP before they arrive.
Value and respect their comments.	Am skeptical of their motivations and judgmental in my perceptions.
Schedule meetings to fit their commitments.	Notify them about when and where the meeting will be held.
Communicate regularly on progress and problems.	Notify them only when there are problems.
Accept their judgments about how much they need to be involved.	Question their commitment to their child when they do not attend meetings/events.
Collaboratively identify skills and activities to be worked on at school.	Inform them of the tasks they need to follow through on at home.
Suggest activities that are important for school or the community.	Recommend they reinforce skills that are important for school.
Reach consensus when there are differing opinions.	Note their concerns, but then move on.

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guide the actions of transdisciplinary teams as they move toward the development of collaborative relationships with parents and the inclusion of parents as full and equal team members. These principles appear in Table 3.2.

Program planning and policy development are greatly enhanced when professionals have a clear idea of the outcomes or goals they wish to achieve. Program quality is directly affected by the extent to which the program's beliefs, knowledge base, and actions are internally consistent and supportive of the attainment of such outcomes (Salisbury, 1991). The first section of this chapter provided a rationale for the inclusion of parents and families in the educational context (outcomes). These outcomes are summarized in Table 3.2. The second section provided a review of philosophical and conceptual literatures (beliefs), as well as research on the status of parent involvement (knowledge). This final section of this chapter offers preliminary recommendations for promising practices (actions) that are linked to the attainment of positive parent inclusion outcomes. The principles listed in Table 3.2 will be used here as a means of organizing the information on strategies for achieving optimal inclusion of parents and family members in the educational context.

Determination of Parent/Family Involvement in the Child's Educational Program

Teams need to adopt strategies and procedures for obtaining information from families about their desired involvement. Many programs and schools use checklists, while others conduct home visits or conferences. Regardless of the form or process used to gather information, it is important for educational programs to obtain at least the following information:

1. Desired frequency of contact with program/school
2. Preferred type of contact from school (written, phone, personal)
3. Preferred location of meetings, if necessary, as well as child care and transportation needs
4. Preferred type of involvement with school/program

Those programs opting for the checklist approach will find several examples in the literature (e.g., Ford et al., 1989; Snell, 1987; Turnbull & Turnbull, 1986a). Figures 3.1 and 3.2 provide examples of such checklists.

Based upon my experience, I recommend sending such inquiries home after staff have determined whether families of

Table 3.2 Principles of inclusionary practices

1. Each parent/family is given the opportunity to identify how and to what degree they wish to become involved in their child's educational program.

2. Schools develop a continuum of strategies and options for enhancing the inclusion of parents/families in the educational context.

3. Parents are treated as equal members of teams.

4. Schools support and promote the self-sufficiency and development of families through integrated and normalized resources.

What Does Your Family Consider Important About School Contacts?

Parents have different ideas about the kinds and amounts of information they want to get from school about their child. The list below contains different ways you and your child's teacher might communicate with each other. Please circle the number to the right of the phrase to show how important each type of contact is to you.

	NA	not at all					extremely	RANK	COMMENTS
1. Written notes	0	1	2	3	4	5	[✓ 6]	3	
2. School newsletters	0	1	2	[✓ 3]	4	5	6	___	
3. Parent/teacher conferences or individualized education program (IEP) meetings.	0	1	2	3	4	5	[✓ 6]	2	
4. Open house	0	1	[✓ 2]	3	4	5	6	___	
5. Informal contacts	0	1	2	3	4	[✓ 5]	6	1	Phone call
6. Parent / Teacher Organization (PTO) meetings	0	1	2	[✓ 3]	4	5	6	___	
7. Classroom observation	0	1	2	3	[✓ 4]	5	6	___	
8. Other, please specify: ________	0	1	2	3	4	5	6	___	

Using the above list, place the numbers 1, 2 or 3 next to the three most important ways of communicating between your family and your child's teacher.

A. How much contact do you want to have with your child's teacher after your child begins public school?

[✓ Daily]
___Once a week
___Once a month
___Once a semester
___Other (specify)

B. Would you prefer

___to initiate most of the contacts with your child's teacher?
___the teacher to initiate contacts with you?
[✓ or both?]

Figure 3.1. Sample checklist on school communication (source unknown).

the children they serve have any unique needs (e.g., English not primary language; child does not live with parents; parent or guardian has limited reading ability). The information detailed in such a survey will be most useful for long-range planning when it is gathered at the start of the school year. I also recommend that the survey document be in a checklist format and limited to one page. While there are admit-

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What Is Important for Your Child To Learn at School?

Parents want their child to go to a classroom where he or she will make progress. Children can make progress in different areas, and some areas may be more important than others. The list below contains different areas your child may progress in next year. Please circle the number to the right of the phrase to show how important it is for your child to progress in this area next year.

	NA	not at all					extremely	RANK
1. Learn basic concepts such as colors, numbers, shapes, etc.	0	1	2	[✓ 3]	4	5	6	
2. Learn prereading and reading skills such as letters.	0	1	2	3	[✓ 4]	5	6	
3. Learn to use a pencil and scissors.	0	1	[✓ 2]	3	4	5	6	
4. Learn to listen and follow directions.	0	1	2	3	4	[✓ 5]	6	
5. Learn to share and play with other children.	0	1	2	3	4	5	[✓ 6]	1
6. Learn to be creative.	0	1	2	[✓ 3]	4	5	6	
7. Learn more communication skills.	0	1	2	3	4	5	[✓ 6]	3
8. Learn confidence and independence.	0	1	2	3	4	[✓ 5]	6	
9. Learn to work independently.	0	1	2	3	4	[✓ 5]	6	
10. Learn to climb, run, and jump.	0	[✓ 1]	2	3	4	5	6	
11. Learn self-care skills such as toileting, dressing, feeding.	0	1	2	3	4	5	[✓ 6]	2
12. Learn to follow classroom rules and routines.	0	1	2	3	[✓ 4]	5	6	

Using the above list, place the numbers 1, 2, and 3 next to the three most important areas for your child to progress in next year.

Figure 3.2. Sample checklist on child learning (source unknown).

tedly drawbacks to forced-choice formats, I have found that open-ended questions frequently do not yield information that is specific enough for designing program options.

The wording on checklists is very important since it conveys attitudes about parents. Using a gradient from "prefer not to be involved at this time" to "would like to be directly involved" conveys a more positive array of choices to parents than does "No involvement" to "Actively involved." I also recommend that parents be encouraged to send the checklists back in their child's backpack or lunchbox as a means of increasing the rate of return.

Programs opting for conference-based information gathering will need to plan for a greater investment of time. That is, while this approach offers a more personal and richer base of information, it also requires considerably more time and energy on the part of staff. For many families, such an approach is more appealing and practical. Consequently, staff must be clear about their objectives prior to initiating contact with the family.

Each approach has advantages and disadvantages that must be balanced against the resources of the program, the needs of the child and family, and the goals toward which all participants are working. Many programs incorporate several methods of information gathering, tailoring each to the outcomes they wish to achieve. Regardless of the method selected, professionals must remain cognizant of how such strategies will affect the family and how the nature of the family will influence the validity of the survey results.

Development of Strategies and Options for Inclusion of Parents/Families in Educational Context

It is very important that parent inclusion be defined more broadly than involvement in the IEP or IFSP meeting. Only recently have we begun to accumulate empirically based information about the scope of parents' involvement outside of the conference situation (e.g., Epstein, 1987; Salisbury & Evans, 1988). This research indicates that parents are "involved" more frequently than professionals believed in activities such as reading to their children, checking their children's homework, and discussing events at school.

However, even these "pictures" of parent involvement are traditional and more constrained than they need to be. In reality, the child's educational context encompasses home, school, and community. Such a conceptualization requires that parent, child, and family priorities and interests be explored relative to each environment. Each environment becomes an extension of the school and a viable location for intervention with or on behalf of the child. Regardless of where instruction occurs, children emerge as the prime benefactors when parents and professionals work together during assessment, program design, teaching, and evaluation.

The quality of this partnership will rest, in large part, on the value that schools place on parent involvement. One index of such an investment is the nature and frequency of contact between parents and teachers. There is no substitute for personal contact between schools and families. Parents report a preference for more frequent, but informal, contact with professionals (Turnbull & Turnbull, 1986a). I have found that having one or two team members cultivate a relationship with parents over a period of time sends a strong message that each partner (parent and professional) cares about the child and the family. I find, for example, that "shuttle notebooks," weekly newsletters, "minute-a-day" phone calls, "good news notes," and home and class visits foster an important connectedness between home and school.

Cervone and O'Leary (1982) offered a matrix of program options. The unique feature of their model is that both the horizontal and the vertical axes reflect a gradient of opportunities for parent involvement. Each axis moves from greater to lesser degrees of personal time investment on the part of the parents. Their conceptual framework for parent involvement is presented in Figure 3.3. While some would take issue with the connotations of their gradient labels, Cervone and O'Leary's matrix is pertinent to a broader definition of school boundaries in that it also includes reference to community and home environments. As an example of involvement

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	Progress Reporting	**Special Events**	**Parent Education**	**Parents Teaching**
Parents as Passive Participants	Good News Notes	Open House	Welcoming Committee	
	60 Second Phone Calls	Audiovisual Presentations	Parent Bulletin Board	
	Star of the Week	Potluck Supper	Information on Home & Weekend Activities	
	Newsletter	Father's/Mother's/ Sibling's Day	Information on Community Resources	
		Spring Fling	Lending Library (Book, Toy, Record)	Make and Take Workshop
		End-of-the-Year Picnic	Classroom Observations	Teachable Moments
	Call-in Times	The Gym Show	Workshops on Topics of Interest to Parents	Home Worksheets
	Parent-Teacher Conferences		A Course for Parents	Parents Teaching in the Classroom
Parents as Active Participants	Home-School Notebooks		Parent-to-Parent Meetings	Parent Objectives in the IEP
	(Parent Leaders)	(Parent Leaders)	(Parent Leaders)	(Parent Leaders)

Parents as Passive Participants → **Parents as Active Participants**

Figure 3.3. Parent involvement continuum. (From Cervone, B.T., & O'Leary, K. [1982]. A conceptual framework for parent involvement. *Educational Leadership*, 40[2], 48–49; reprinted by permission of the Association for Supervision and Curriculum Development. Copyright © 1982 by ASCD. All rights reserved.)

options, their model offers readers a basis for adopting or adapting the content to suit their program's unique needs.

Professionals often find that parents are more willing to become involved in school-sponsored activities when such events are family focused rather than exclusively parent centered. Specifically, didactic presentations on topics of presumed or expressed interest to parents (e.g., parents' rights, behavior management, advocacy, transition planning) draw smaller, more proactive groups of parents. These activities clearly have merit and should be offered as options for parents and families. In contrast, family-focused activities such as picnics, open houses, potlucks, holiday craft workshops, and "make-and-take" toy workshops frequently draw more of a cross section of families to the school. While these latter activities are more labor intensive for staff, the effort necessary to orchestrate the event should be weighed against the potential gains for developing family connectedness to the program. As mentioned earlier, programs that offer child care and transportation often see greater levels of parent attendance.

Rainforth and Salisbury (1988) described a practical strategy for assessing each family's typical daily routine as a basis for decision making and intervention in the home. This strategy involves asking a parent(s) to chart the typical flow of family activities during the week, making particular note of what their child with special needs is doing during those times. They are then asked to identify opportunities within that schedule when they normally interact with their child. Finally, they are asked to judge the suitability of these interactions as potential teaching times. Parent-identified times are used as the basis for discussing the feasibility of embedding goals/objectives into naturally occurring family routines. Embedding home programming recommendations into existing family daily routines enables target skills to be taught or reinforced on a consistent basis with minimal inconvenience to the family. The daily routine information can also be used as a basis for parent contributions during the IEP meeting, as well as a tool for identifying appropriate times and situations into which intervention goals can be embedded.

In a similar paper, Brinckerhoff and Vincent (1986) described the application of the same "family daily routine" strategy to the IEP context as a vehicle for enhancing meaningful parent contributions. Their data indicate that parent contributions increased significantly during IEP meetings after introduction of the daily routine strategy. These papers highlight one strategy through which parents are afforded equal status as contributing team members.

Early intervention programs, particularly those serving infants and toddlers, are embracing a family-focused approach to assessment and intervention. Structured interviews described by Bailey and colleagues (1986), Dunst and coworkers (1988), and Mahoney, O'Sullivan, and Dennebaum (1990) are particularly useful for obtaining in-depth information from parents about their family. While there are conceptual differences among these approaches, each emphasizes the importance of assessing the expectations, resources, and interests of families prior to the development of child and family interventions.

If staff experience difficulties operationalizing the suggestions mentioned above, it will be important to determine whether the problems are interpersonal, systemic, and/or instructional in nature. Strategies will need to be developed for addressing "blocks" to implementation and evaluating the outcomes of their efforts. While parents can be contributors to group process and decision-making difficulties, many of the "blocks" can be addressed by altering the attitudes, beliefs, and actions of the professionals on the team. It is incumbent upon the professionals, not the parents, to assume a leadership role in promoting the inclusionary effort.

There may be times when the expressed or assessed needs of the parent and family are so great that they interfere with the child's attendance at school, development, and/or physical well-being. These issues may surface in multiproblem families where there is a complex interplay among

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capabilities, resources, and economics. Balancing professional roles with responsibilities to the child and the family can be difficult. Recently described case management models suggest identifying one member of the team as the individual whose role it is to establish linkages among nonschool agencies and resources and the family. Such a strategy limits the number of professionals calling on the family and offers greater potential for interagency coordination.

Professionals on teams serving school-age students will likely devote the greatest proportion of their time to direct services of the child at school, with indirect assistance provided to the child and family in the home. Infant and preschool teams are more likely to play a more direct role in teaching the child both at home and at school, while providing both direct and indirect support to the family. Interagency, as well as cross-disciplinary, collaboration will be important in the development of successful services at both age ranges. To the maximum extent possible, teams should invest decision-making responsibilities with the family and provide supportive guidance to parents/families in their efforts to function both adaptively and independently (Dunst et al., 1988; Kaiser & Hemmeter, 1989).

Treatment of Parents as Equal Team Members

Effective teams are typically those that employ creative problem-solving techniques and cooperative group process skills (e.g., Johnson & Johnson, 1986; Johnson, Johnson, Holubec, & Roy, 1984). There are four elements to cooperative learning (positive interdependence, individual accountability, collaborative skills, and group processing) that have direct implications for how we treat parents as team members. The ability of the team to work effectively (cooperatively and collaboratively) will require leadership, trust, communication, conflict management, and a commitment to work toward mutually agreed upon goals.

Johnson and coworkers (1984) suggested that skillful group members are made, not born. It is unrealistic to expect teams to function effectively if they lack knowledge and skills about the group process and collaboration. Teams, as units, and individual members are encouraged to identify their skills in each of the component areas mentioned above and develop activities to address deficiencies. Mentorships, in-service training, directed reading, continuing education coursework, and in vivo modeling by more experienced colleagues or parents are some of the more popular formal strategies for obtaining both informational and performance competence in this area. Supportive feedback from teammates is an essential, informal strategy that can significantly affect the cohesion of the team.

Clearly group process and collaborative team skills are but two of the elements needed to work effectively as a team. As indicated earlier in this chapter, attitudes, values, and beliefs also play an important role in how professionals and parents interact. Kaiser and Hemmeter (1989) provide a valuable framework for examining the relationship of values to educational decision making. In particular, they ask four questions related to interventions with children and families: "Does the intervention enhance community? Does the intervention strengthen the family? Does the intervention enable parents to do their jobs well? Does the intervention enhance individual development and protect the rights of individual family members?" (p. 78). The necessity of including parents in the decision-making process is obvious

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In light of such questions. In a preliminary attempt to operationalize the four values-based elements, Kaiser and Hemmeter offered an 18-item checklist that addresses intervention plans and how they might affect the family.

Kroth (1978) stressed the importance of values clarification and assessment as a necessary tandem to conferencing skills. In related work, he recommended several resources for professionals wishing to assess their own and others' values (Kroth & Simpson, 1977; see Simon, Howe, & Kirschenbaum, 1972, for techniques).

Support and Promotion of Self-Sufficiency and Development of Families Through Integrated and Normalized Resources

Children do not exist in a vacuum; consequently, how a family functions affects children's performance at school. If schools expect children to do well, they must also promote the well-being of families. Schools and professionals can respond proactively by acting in ways that foster the self-sufficiency and independence of families. Actions that devalue single parents, those whose primary language is not English, those whose child-rearing beliefs are different from the beliefs of the majority, and those whose jobs compete for time with their family, are counterproductive to the development of collaborative home-school relationships.

Schools have an obligation to extend their educational expertise to families as well as to children. This can mean that team members function in the community in a variety of roles. For example, members of transdisciplinary teams may serve as consultant teachers/therapists to integrated community-based day care and preschool programs (Tempelman, Fredericks, & Udell, 1989). With proper supports and training, generic agencies can be adapted to appropriately meet the needs of students with disabilities. In the process, parents are afforded the opportunity for more normalized resources and less dependence upon specialized, segregated services (Salisbury, 1986).

If schools view their boundaries broadly as encompassing home, school, and community environments, then instruction can and should occur in a variety of settings with or on behalf of the child. When families request support or information concerning their child at home, it is incumbent upon therapists and educators to respond with practical, minimally invasive recommendations in a timely manner. For example, parents may express frustration with their child's behavior in the home and/or in the community. Baker and Brightman's (1989) latest revision of *Steps to Independence* offers parents and teachers sound, practical advice for teaching specific social and self-help skills to children with disabilities at home. It is an excellent resource that can also serve as a text in in-service training and parent education workshops.

Rich's (1988) text, *MegaSkills*, is based on the premise that parents play a critical role in supporting their child's learning at school and at home. The book is a powerful compendium of concrete, practical strategies for promoting the values, attitudes, and behaviors that determine success in and out of school. "Tips" for integrating important life skills (many of which are "school skills") into activities that naturally occur in the home are provided for children at various age ranges. Additional chapters address special issues confronting the home-school partnership. Professionals will find many creative suggestions that should be of value in their work with parents and families.

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SUMMARY

Parent inclusion on transdisciplinary teams is necessary for the development of a high-quality educational program for individual students. We must, however, be cautious about narrowly defining the roles and opportunities for parents and family members. There are many ways in which families support the learning needs of children, many of which do not require regular or sustained attendance at school. Because families, as well as children, present diverse needs and capacities, it is essential that professionals recognize and account for these differences in the design, development, and implementation of parent involvement opportunities within the educational context. This point becomes particularly salient when inclusion on transdisciplinary teams is at issue. Strategies exist, but their application must be prescriptive to the families we serve. For many, collaborating with parents and family members will require additional training, alterations of historical perceptions, and a commitment to inclusion. Commitment to a collaborative partnership must come first.

Two Sculptors

I dreamed I stood in a studio
And watched two sculptors there,
The clay they used was a young child's mind
And they fashioned it with care.

One was a teacher; the tools she used
Were books, music and art.
One, a parent who worked with a guiding hand
And a gentle, loving heart.

Day after day the teacher toiled
With touch that was deft and sure,
While the parent labored by her side
And polished and smoothed it o'er

And when at last their task was done,
They were proud of what they had wrought;
For the things they had molded into the child
Could neither be sold nor bought

And each agreed he would have failed
If he had worked alone,
The parent and the school,
The teacher and the home.

Author Unknown

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On the nature and change of an inclusive elementary school[1]

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Abstract

Qualitative research methods were used to conduct an in-depth study of an inclusive elementary school with the intent of characterizing its context and practices. It was reasoned that such detail would provide valuable insights for those involved in systems change efforts. Data were gathered over period of 30 months and included observational fieldnotes, interviews, shared anecdotes from teaching staff, and analysis of school publications and products. Multiple methods of triangulation were employed to validate the data collection process and our findings. Descriptive themes emerged from the data which characterize the nature and evolution of this school's reform towards a more inclusive context. These themes were discussed and implications for future research were presented.

Considerable attention has been devoted in recent years to the concept of inclusion. Much of this literature describes its philosophical bases (Brown et al., 1989; Lipsky & Gartner, 1989; Stainback, Stainback, & Forest, 1989), as well as administrative and instructional strategies that can be used to move programs towards more inclusive practices (Gaylord-Ross, 1989; Ford & Davern, 1989; Thousand & Villa, 1990). Despite an emerging body of information, empirical descriptions of the development, implementation, and outcomes of inclusive program models are generally lacking.

If efforts to expand inclusive schooling are to be successful, it will be important to study contexts where implementation has occurred. In particular, it may be useful for others to understand the nature of an inclusive school, the issues faced by their staff, and the evolution of that program over time. Continued service development efforts may be well served to the extent that others find affirmation and guidance in such descriptions.

Program development and implementation information can be useful in distinguishing important features within and among programs that appear to contribute to their success. Such evaluations also afford the opportunity to describe how broad principles are adapted within the context of local conditions, organizations, and programs Implementation evaluation asks questions like: What is it like to be in this program? How has this program developed? What factors affect the implementation of this program model (Patton, 1990)? Descriptive answers to such questions can provide functional guidance to decision makers as they plan for the reform of current educational programs. Movement towards more inclusive educational practices must be grounded in an understanding of not only "what works", but "why it works". Given this knowledge, the implementation of public policy can become more focussed and productive.

An ecological framework, such as that espoused by Bronfenbrenner (1979), can be used to analyze the implementation of integrated and inclusive program models (cf., Peck, 1993). Our particular interest was in an exosystem (organizational) level analysis of the structures, principles, and practices which undergird an inclusive educational program. Qualitative methods of inquiry are particularly well suited to gathering detailed descriptions about organizations and their operation. By immersing oneself in the lives of people in a given context, the researcher gains insight into the meaning of events, actions, and activities from the perspective of the participants (Biklen & Moseley, 1988; Bogdan & Biklen, 1982; Patton, 1990; Stainback & Stainback, 1989). It then becomes possible to describe and understand the transactional workings of an organization and the perceptions of those most directly affected by its policies and practices.

Within the past decade there has been increased use and acceptance of qualitative research methods in the field of special education. More recently, children with severe disabilities, their families, teachers, administrators and/or peers have been the focus of study using structured interviews (Ferguson, Ferguson, & Jones, 1988; Peck, Donaldson, & Pezzoli, 1990), case investigations (Goetz, Lee, Johnston, & Gaylord-Ross, 1991), and participant observation methods (Chadsey-Rusch, 1990; Peck et al., 1989; Salisbury, Britzman, & Kang, 1989; Schnorr, 1990). Rich insights into the lives of people and the organizations that serve them have helped to inform the field of critical issues, complex interactions, and systems change struggles.

Despite this emerging body of research, the field has remarkably little insight into the inner workings of an inclusive school. It was, therefore, our intent to employ ethnographic research methods to describe the organizational characteristics and evolution of an inclusive elementary school.

Method and Procedure

Qualitative research techniques were used to gather data about the setting and its participants over a 30 month period. This method calls for the investigators to become a natural part of the setting such that they are able to understand both the meaning and process of that which is observed and experienced (Bogdan & Biklen, 1982; Stainback & Stainback, 1989). Data were gathered by the authors using the methods described below. Each type of data was collected within the context of a larger research project funded to examine a strategy for maximizing the inclusion of students with severe disabilities in general education classrooms. Table 1 depicts the nature, frequency, and responsibility for data collection pertinent to this study.

Insert Table 1 About Here

Participant observation. The three authors functioned as participant observers. This method involves the collection of detailed fieldnotes written during or immediately after each scheduled observation or informal discussion (in situ interaction) to reconstruct the observed experiences as accurately as possible. We employed a systematic, rotating schedule of observations across contexts so that important school and classroom activities could be described on a regular basis (see Table 1).

Brief in-situ discussions which often occur when the researcher is drawn in as "participant" can yield rich insights into issues, perspectives, and hypotheses about the setting and its participants. These "discussions" were frequently used by administrators, teachers, and parents as an opportunity to transmit oral and written anecdotes to the researchers about events that occurred in classroom and non-classroom settings. In general, the substance of these anecdotes dealt with matters the participants felt were significant, issues they felt required technical attention and/or support, and/or that demonstrated how students without disabilities had dealt with an issue that affected the inclusion of students with severe disabilities (e.g., a story or drawing). These anecdotes were dated and incorporated into the data base as additional pieces of evidence about the school and classroom context.

Interview. Semi-structured interview data were collected by the

Project Coordinator at the close of each school year with general and special education teaching staff who had instructional responsibility for students with severe disabilities These individual interviews lasted about one hour, were audio-taped, had the character of a "debriefing session", and were designed to allow the teachers to talk about their year, with a particular focus on the inclusion of students with significant disabilities. Tapes were transcribed verbatim for incorporation into the chronological data-base.

Interviews were supplemented with bi-monthly project report meetings to the teaching and administrative staff. These meetings were used as one opportunity to conduct "member checks" with those individuals who were observed and quoted. Data from these various meetings with school staff provided multiple opportunities for us to test hypotheses and refine our understandings about what was being observed.

Permanent Products. Random samplings of monthly school and district newsletters, task force reports, classroom charts/posters, and minutes of meetings were collected over the 30 month period and included in the data base as additional indices of organizational features and climate. This information was dated, the source and context identified, and entered into the chronology for that week and month.

The school faculty were very cooperative in scheduling time for interviews. Risks of reactivity to the observations were minimized because the faculty and students were accustomed to observers in their classrooms (this school was host to over 1000 visitors each year). Insofar as no data were excluded from the initial analysis, there appeared to be minimal distortion of information selected into or out of the data base.

Participants and Setting

The district in which this study took place serves approximately 1200 students, grades K-12, 110 of whom are classified as evidencing a disability. In many respects the district is typical in its size and composition to other suburban-rural communities in the region. Students are served in 2 elementary schools, one middle school, and one high school. The village of 17,000 residents is predominantly blue-collar, middle class, with a high proportion of Amerasian families.

However, the district is also unique. Nationally recognized for its validated Outcomes Driven Developmental Model (ODDM) (JDRP validated, 1985; NDN, 1986), the Johnson City Central School District incorporates many practices endorsed in the effective schools literature within an organizational framework of outcomes-based education (Blum, 1985; Purkey & Smith, 1983). Briefly, the effective schools literature indicates that positive student outcomes appear more likely to occur in those schools that exhibit many, but not necessarily all, of the following characteristics: racial and ethnic pluralism, parent participation, shared governance, academically rich programs, skilled use and training of teachers, personal attention to students, student empowerment, an accepting and supportive environment, and success focused teaching (Oakes, 1989; Stedman, 1987).

Data reported in this investigation were collected in one elementary school which served approximately 650 students with and without disabilities in grades K-4. Current demographic data on this school are reflected in Table 2. This school serves as a cluster site for students with multiple physical disabilities due to accessibility problems in the other elementary school. This was a neighborhood school for all other students.

Insert Table 2 About Here

Data Analysis and Validity

Data analysis. The main purpose of data analysis was to identify themes and issues that were grounded in the data being collected. Bi-weekly project meetings, coupled with the bi-monthly meetings with school staff, provided an opportunity for the researchers to discuss trends, affirm perceptions, and develop interpretations of the data (Taylor & Bogdan, 1984). At the close of each year of data collection, all fieldnotes were transcribed in chronological order into a typed transcript. Final data analyses involved the identification, coding, and categorization of primary patterns in the data using a content analysis procedure (Patton, 1990). Two investigators separately identified patterns and assigned the data into dominant categories. These assignments were then compared and discussed, with consensus reached on six broad categories by the first two authors. Meetings were held with administrators, staff, and parents during which time the six themes and supporting evidence were shared. These sessions resulted in an affirmation and elaboration of the 6 categories; the nature of which staff, parents, and investigators agreed presented a more accurate and refined description of the nature and evolution of this school.

Validation. Several methods were used to validate the data and the process of analysis. First, two types of analytical triangulation were employed. By having two evaluators compare, discuss, and generate themes the potential for bias that might arise with a single perspective was reduced. Second, those who were studied reviewed the findings and validated the themes. This "member check" served to further assure that the findings were recognizable as that which they had experienced. Third, we employed triangulation of data sources. That is, the transmittals from staff, administrators, and parents were examined for their consistency with our direct observations and frequently "duplicated" events and issues the investigators had already observed. In addition, products such as newsletters, memos, and minutes of meetings were analyzed for additional insights into the characteristics of the school and their concept of inclusion. Finally, the lengthy period of observation and the differing levels of immersion in the school context contributed to greater assurance that in-depth collection of evidence would be possible and that data would be accurately interpreted.

Findings

The nature and development of this particular elementary school are described below with reference to the implementation questions raised at the outset of this paper. Phrases in quotations were drawn directly from the fieldnotes and reflect those used by faculty and students in this school.

What is it like to be in this program?

The initial "picture"

Description of this particular elementary school's evolution should be grounded in the context of their outcomes-based, educational model. Recognizing that programs sometimes "do not walk their talk", we undertook an initial description of this school's organization prior to the entry of students with severe disabilities. These initial program findings continued to influence the evolution of this school towards a more inclusive context throughout our investigation.

Vision-based decisions. Decisions about educational reform and systems change occurred within a well-defined, vision-based, decision-making process that teachers and administrators used on a frequent basis. Referred to as the "screen", the process requires that all decisions be reached by consensus and that components of the four component decision-making model be "aligned" (internally consistent). Grounded as a series of questions, the process begins by asking, "Is what we're doing getting us what we want?". To answer this question, staff must identify what it is they wanted to achieve (a goal/vision), and whether what they believe (philosophical base), know (information based on best available research and experience), and are doing (current policies and practices) are supportive of attaining that goal. Insofar as the staff identified an inclusive school as their "want", decisions about reform were made relative to meeting the needs of all students, including those with disabilities.

As a catalyst for change and innovation, the decision-making "screen" was both effective and disruptive. Its optimal use was predicated upon raising a certain level of dissonance and discomfort among staff such that they questioned the validity of their current practices and structures. This frequent state of "dissonance" and ambiguity was disconcerting and stressful for many staff. One teacher's comment that "We've got too much on our plate" was echoed by another who said, "We don't have time to get good at something before moving on to the next big project". Both sentiments were confirmed by our observations that change was indigenous to the school. Yet, while some staff found change stressful, others preferred innovation to stagnation.

Explicit value base. In the early 1970's the district reached consensus on a core of 10 beliefs related to teaching and learning; among those were mastery, trust, success, inclusion, and cooperation. We observed conscious efforts to operationalize these beliefs, most notably through their teaming, mastery learning, and cooperative teaching and learning practices. An excerpt from the "Principal's Window" in the school newsletter illustrates this values base:

> "In quality schools, there are strong efforts to teach for understanding, to help children develop the "preventative armor"

> of self-confidence because they are part of a school culture that helps them feel like they belong. Where they have choices, are allowed to risk, and are valued and recognized for their uniqueness. In such schools, students and adults are self-directed and know that all problems can be solved using cooperation and a planned process. Harry L has always sought to be more than a school where children score high on tests. Ours is a place where "family" means something and where children should be "learning how to learn" in a rich, varied, and self-motivating environment."

We found that, in practice, their notion of "inclusion" meant that all members of the school and neighborhood community were "connected" and "belonged". In reflecting on the concept of inclusion historically and more recently, a first grade teacher remarked:

> "Inclusion. We've had that as a core belief for 20 years. It applies to all individuals in this building - adults and kids. The way our teams function - the way decisions get made about students, curriculum and activities - everyone is included. We share decision power with the students, and we try to ensure that each individual is an equal and valued contributor to the team".

Intentional environment. When entering this school, one encounters carpeted hallways lined with plants, and esteem-building phrases lettered over each arched hallway that read: "Through these hallways pass the best kids anywhere" or "Harry L. kids are great!". Peering into classrooms one sees no desks; only tables around which groups of children engage in a variety of cooperative learning activities. The climate reflects many links to the espoused value base of this school.

Walking from class to class, one is struck by the consistency of instruction using principles from mastery learning. At the same time, teachers in this school assume that learning should be fun, students should be successful, decision-making power should be shared, teachers should be flexible, and that individual needs and interests should be of paramount concern.

> Rather than dictate one way of learning for all students in her fourth grade classroom, Mrs. K. asked how the class would like to learn about the history of Johnson City. Responses included "by doing a play, making a video, writing a report, taking a field trip". Each student was allowed to choose his/her preferred activity, to work alone or in groups, and to share their products with members of the class at the close of the unit.

Children in this school not only collaborated with each other in the learning process, they were also empowered to make substantive decisions about classroom process. The kindergarten teacher explained the school's belief about empowering students this way:

> "When we come in the beginning of the year, no matter who's here, whether it's just typical children or kids with disabilities, we always do how we are the same and how we are different. We always set up the classroom rules that they generate themselves. We're trying to give them the power that this is their classroom, and that they can help set the tone and set the rules and set whatever they want to do."

Teaming. The commitment to cooperation was also manifested in the grade- and/or cross-grade level teams that formed the infrastructure of this school. These configurations created natural opportunities for general education staff to share ideas, knowledge, and expertise during daily team planning meetings; opportunities which had subsequent benefit in supporting students with severe disabilities and in resolving issues around their inclusion in general education classes. Curriculum development and instruction, hiring, staff deployment, and distribution of students to teams were among the areas staff shared decision-making power with the administration. Staff and administration often made reference to the "power of the team", "team as family", and the "magic of teams of people working together to make things happen". Teams in this school functioned as sources of support and catalysts for reform.

How did this program develop?: From segregation to inclusion

Historically, students with disabilities were served in segregated, out-of-district programs. In 1985, students with mild/moderate disabilities were "pulled back" into district based learning support (resource) rooms and served concurrently in general education classes. In 1986, planning began for the "re-integration" of students with severe handicaps. These decisions arose from an examination of the growing literature on "best practices" and the recognition that past actions were inconsistent with the district's wants and beliefs.

The administration began the process of planning for the re-integration of students with severe disabilities by sharing their vision for the school with staff. They then made four service development decisions. First, they would begin at the primary level, creating a staged influx of students with moderate and severe disabilities into the system over time as new students entered and existing students "aged up" through the grades. Second, they would offer the opportunity for district-based services to any parent whose child was currently served in a non-district program. Third, students at the high school level who had developed sustained friendship networks in the segregated program would not be "up-rooted". Finally, they would seek the technical assistance of university faculty who could provide direction and support. Given this initial base of decisions, they then identified a "willing" kindergarten teacher. She recalls that year vividly:

> "They put a note in my mailbox in June telling me I was to have students with special needs in my fall kindergarten class. I had no training, no warning, knew nothing about students with disabilities, and didn't know what kind of support I would have. We did meet for two weeks during the summer; but it was hardly enough to prepare me for 8 classified students, 5 of whom had severe disabilities! And even though I had the support of a special education teacher and her aides, it was still overwhelming. That first year was really a situation where I was acting out of compliance, rather than commitment to inclusion."

"The only thing that stays the same is change"

In subsequent years, the district adopted a less directive approach to reform, and instead, worked collaboratively with staff and the authors to identify "what needed to change to get them what they wanted". Changes in the types and level of support, shared "success stories", and inservice training helped alleviate fears and engender greater commitment among staff in the building.

Changes in structures. The earliest and most visible change in the infrastructure of this school was the addition of special education staff to existing grade level teams. Yet, initially, this "support" was perceived as only "on paper" since the special education staff did not share a common planning time with their general education teammates. The lack of time to plan together created numerous problems for the staff and affected the quality of services to students with disabilities, who during the first year of "re-integration", continued to be based in a special education class.

When special education staff went into general education classrooms with "their students" they perceived themselves as "aides" and felt "like a guest". The exclusion of some children from grade level classrooms for large portions of the day, the exclusion of some adults (special education and related services) from team planning meetings, and the tensions around turf, professional identity, and roles and responsibilities indicated deeper issues of distrust, fear, and competition. Two factors accounted for much of that tension.

First, the lack of shared planning time at the outset of the district's "inclusion effort" made it difficult for teams to coalesce, for individuals to feel valued and connected to grade level teams, and for there to be a meaningful sense of shared responsibility for all children. A second factor contributing to tension was perceived inequity among team members. An exercise led by the principal revealed the perceptions held by special and general education staff about each other.

> He asked general and special education teachers to describe the characteristics of a "teacher". Through discussion it became painfully apparent that the general education staff did not define small group instructional responsibilities, one-to-one assessments, and the functional nature of curriculum as "real teaching". Conversely, the special education staff voiced concerns with the "lack of classroom control", the non-individualized nature of instruction, and the reliance on paper-pencil activities evidenced in general education classrooms.

These vastly different "pictures" of who a teacher was and the implicit devaluing of much of what the special education staff was responsible for helped to explain many of the relationship tensions. To rectify this situation, the principal created the time necessary for teams to meet and share information, clarify roles and responsibilities, and decide how general education classrooms and personnel could be reconfigured to meet the needs of all students.

Other structural changes included the physical relocation of teachers (classrooms) so that students with mobility restrictions could be included on teams, and the re-assignment of students with disabilities on and across teams toward more natural proportions. These decisions made it possible for more students with disabilities to be served by more teams, and more students without disabilities to have relationships with their peers with disabilities.

Policy changes. Three significant areas of policy change occurred during this investigation. First, roles and responsibilities of instructional and support staff were reconceptualized, allowing more staff to function outside of traditional role definitions. Second, teachers who expressed interest in serving students with severe disabilities in their room could request a reduced class size in recognition of the "increased traffic" (i.e., personnel) and equipment that often accompanies students with multiple needs. Finally, by the third year of implementation, the administration shifted its stance on assignment of students with disabilities to teams. Concurrent with the adoption of building-wide consensus in support of inclusion, the administration stated that all teachers and students would have at least some daily contact with students with disabilities. This policy ensured that students with disabilities would be enrolled according to natural proportions across all teams, and supported by a teacher with special education expertise.

Pedagogical changes. Early on, most of the instruction for students with significant disabilities occurred within the classroom parallel to that which was occurring for students without disabilities. Students with disabilities were grouped at the rear of the class for intensive instruction by special education staff, creating, in effect, a "class within a class" with special education students and staff feeling and being perceived as "excluded" and "not part of the group". At various times in the day, the special education teacher took "her students" back to "her classroom" and provided more directed instruction. The system seemed "stuck" at the level of physical inclusion.

Two issues seemed to be contributing to the "mutual co-existence" in classrooms. First, the staff lacked information about how to accommodate students with severe disabilities within the general education curriculum. Second, they struggled with striking a balance between philosophy and local circumstance in determining the proportion of time students should be spending in general education classrooms. To address these two issues, the staff collaborated with the senior author to adapt and develop a five-step, curriculum adaptation process (cf., Salisbury, et al., in preparation). Briefly, each step represents a decision by the teacher about the degree to which a regular education activity needs to be adapted to keep the student with a disability instructionally included, while still addressing their individual needs and objectives. The emphasis on curriculum adaptation was, perhaps, the most salient pedagogical change during the first and succeeding years.

> In Mrs. G's second grade class students are working on maps of South America. S., a student with multiple intellectual, motoric, and sensory disabilities is a member of a cooperative group. While other students draw and label countries on maps at the table, her partner does his work on her slanted tray table. Periodically, he pauses and shines a bright flashlight on the tray, moving slowly to outline his work. S. tracks and scans the colorful map drawing.
>
> Mrs. P's first grade class is working on sight words using a lotto game. A student with mild disabilities works on his IEP objectives for reading by calling out the words from index cards at the front of the class while classmates put raisins on their cards. M., a students with severe intellectual and motor disabilities, uses a picture-based communication system to point with his eyes to the correct "word". His teacher sits behind him to whisper guidance while a peer checks his work, puts a raisin on his card for him, and calls out "Bingo" when M. wins.

The collaborative problem solving process developed by project staff was viewed by teachers as a particularly effective pedagogical strategy for promoting the inclusion of students with severe disabilities (Rainforth, 1992; Salisbury & Palombaro, 1992). The following example shared by a first grade teacher illustrates this process:

> "Our first grade class was taking turns putting on a puppet show from a story we had read. The children stand behind a screen and hold the puppets up as they recite their lines. T., a student with cerebral palsy, is called up with her group to take her turn. The aide said, "T. can't stand without holding onto something. If she sits she's too short and we can't see her puppet." One student said "Why doesn't Mrs. T.(aide) hold T. while she stands? Another suggested "How about using her walker?" After lots of discussion Brendan said, "Why don't we put T.'s puppet on a stick? She could sit on the floor and hold the stick up so we could see her puppet over the screen."

Accommodation seemed to produce insights into the person behind the disability by non-disabled peers. Third graders wrote a biopoem about their classmate J., who evidenced severe intellectual and behavioral disabilities:

J.
curious, shy, fast runner, likable
brother of Tony and Lisa
Friend of all
who loves the flag, swinging, and giving high fives
who feels excited and happy to be at school with his friends
who feels frustrated when things don't go his way
who fears loud noises
would like to see Batman and chocolate milk come out of the
drinking fountain
who remembers Mrs. S. giving him a hug
would like to be a politician
resident of Johnson City
R.

Changes also occurred in how teachers approached the instructional process. In reflecting on their movement away from paper-pencil activities toward "event driven" (i.e., activity based) instruction, the primary teacher observed:

> "At the beginning, I used a lot of workbooks. As we worked to find ways to include all kids, I found myself relying less and less on paper-pencil materials and more and more on manipulatives. We've moved to an event-driven, whole language focus at all grades. That makes it a lot easier to include everyone."

Other changes occurred as parallel instruction within the same class gave way to shared planning and co-teaching, and as staff became more intentional about modeling and promoting equity for all students in their classrooms. The following excerpts from the interviews with general education teachers help illustrate strategies for promoting equity:

> "So I think setting it up physically does help. Same thing with M. and S... it was very important to me not to put them in the back of the room. And always set it up so that the kids didn't say "Oh, they're always in the back" or "They're always in the front on the side". They just moved in the room just like everybody else. When people changed seats they changed

seats too."

> "We're always doing cooperative groups. C.(aide) also made sure S. had a role in groups. And if she was the encourager, that was her job to do that. She couldn't be a recorder obviously, but she could if it was a reader. S. could push the switch so she could be the reader [playing prerecorded part on a tape recorder]. S. had a part just like everybody else. And the kids loved it, that she had her own part. See, it was never like M. and S. were like the fifth children. It was never like that. They were fourth or the third, they were always part of the group. Never just on the end, just there."

Attitudinal changes. While all teachers differed in their level of commitment, general education teachers were particularly concerned that each student be successful and that they receive high quality instruction in the classroom. Many, however, struggled with "not having all the answers" and feeling as though they should. A third grade teacher commented:

> "Well, the hardest thing was knowing the right thing to do. I mean like with D.; I could look at what was going on and know it probably wasn't enough but not feel totally comfortable with what would be better for him to do. Now I know that I'd like him working on more life skills kinds of things or things like his communication board. I feel I probably should have done a better job of building some of the social stuff for him, but it was hard."

Over time, the tone of the general education staff shifted from resistance, to cooperation, to overt support. One teacher commented:

> "In the beginning I was scared, probably reluctant. But M.(special education teacher) really helped show me how to make it work. We've worked hard to help all kids stay involved. My class is so much richer. I would never go back to having only kids without disabilities. What better way for typical kids to learn concern for others? They're going to be tomorrow's citizens. I want them to grow up having friends with disabilities, and seeing how everyone can participate. Everyone has value."

The principal recounted her excitement at a team meeting where:

> "...fourth grade teachers had been planning a field trip and instead of people saying "I don't know if J. can go" or I don't know if B. can go", the discussion was oriented around "what plans are we going to make to make sure that this is successful for.... Their level of commitment is high."

Attitudes among peers seemed to change with experience, knowledge, and modeling. The primary teacher commented:

> "When kids first come to school they see the students with severe handicaps as a novelty. Treat them like inanimate objects. Then they become too directive - like little teachers. Doing too much for them. As we show them better ways to interact and all the things that students with disabilities can do, relationships seem to evolve more equally. You can really tell the difference between the kids who have been in an inclusive class and those who haven't."

The speech therapist observed:

> "I haven't worked with S. in 2-3 years. But it was delightful to see the students relate to her more as a peer than as some kind of object. The nature of the discussions, even the way they used their voice to talk to her, you really felt that they weren't treating her like a baby, but as another fourth grader. And they had high expectations of her."

These qualitative changes in attitudes and relationships occurred throughout the grades, and was most evident in classes containing peers with and without prior experience with severely disabled classmates. A second grade teacher commented:

> "You know they really were the ones who taught me what to do. And taught their friends who weren't in class with them last year. Watching kids like N,.or R. lead the way. Seeing what they did with them [students with severe handicaps] and stuff. We all learned a lot from each other."

Recurring Issues

Some pedagogical issues recurred with regularity over the 30 months of observation. These issues were discussed by staff at team meetings, in hallway exchanges, faculty meetings, and in meetings with colleagues from other buildings in the district. Specific issues of continuing concern to staff included intensity of instruction; developing high levels of engagement; proportion of time students need to spend in general education classrooms; incorporation of innovative ideas into existing curriculum and teaching practices; how to effectively address disruptive and/or motivational problems in students; how to deploy personnel to best meet individual learner needs. What is most interesting to us is that the above issues were discussed by faculty and administration with respect to all children in this school. The sense among this faculty was that quality educational practices are necessary for all students in the school, not simply those who are developing normally. There appears to be a fundamental premise of equity, accommodation, and inclusion operating in this school that influences the light in which all issues are discussed and framed.

Discussion and Reflection: What factors affected the implementation of this program?

This study clarified several characteristics and evolutionary changes of an inclusive elementary school. These characteristics are consistent with those hypothesized as important by proponents of the special education concept of inclusion (cf., Stainback, Stainback, & Forest, 1990; Thousand & Villa, 1990), as well as those who advocate for the creation of "inclusive communities" (Kohn, 1991; Kunc, 1992; Sapon-Shevin, 1991). This school charted a path towards the development of an inclusive community where policies, conditions, and supports were good for all its students.

Systems change in this school occurred slowly, intentionally, and most effectively within a collaborative process of decision making. The school's initial autocratic (top down) method of creating an inclusive context generated only compliance and resentment. The support and leadership of the administration were clearly influential in developing the conditions necessary for change. The momentum for systems change became more of a shared agenda as staff worked collaboratively with administration to articulate their vision of inclusion. Sustained progress occurred as staff experienced success in meeting the needs of students with significant disabilities, felt supported, and made connections between their values base and instructional practices. Constant reflection on actions, beliefs, knowledge, and desired outcomes enabled staff to maintain their desired course. While the staff readily admit they are "a 5 on a scale of 1 to 10", they now feel they have a clearer sense of where they are headed and how to get there. Strategies such as curriculum adaptation and collaborative problem solving proved beneficial to most staff involved with the inclusion of students with severe disabilities. These various elements seem to most directly contribute to the relative success of this school's efforts in developing an inclusive educational community.

The commitment and actions of the faculty in this school played an important role in developing important social values among the students in their classrooms. Students developed a working sense of how individuals with diverse abilities and interests could be accommodated in "mainstream" activities, how they could play a meaningful role in advocating for their peers with disabilities, and how equity, inclusion, collaboration, and success could be promoted within and outside of the school context. It is arguable that such "lessons" are as valuable in the long term as are the academic ones these students learn throughout the year.

Limitations

There are acknowledged limitations to the findings from this study. First, caution should be exercised in generalizing our observations to other inclusive contexts. While the underlying outcomes-based model provided an exemplary backdrop for our investigation, it also limits the settings to which these principles might be extended. Whether these same principles emerge in other inclusive elementary settings can only be answered with further research.

In addition, it is important to note that the findings of this study did not focus on objective indices of learning outcomes for either the students with or without disabilities, nor on the impact that diverse student needs and abilities had on classroom teaching practices. While some of these data have been collected and are being disseminated (e.g., Evans, Salisbury, Palombaro, Berryman, & Hollowood, 1993; Salisbury, Evans, & Palombaro, 1992), it was not our intent to undertake this type of analysis here. Rather, the findings emerging from this study were intended to provide insight and guidance to those involved in systems change efforts.

Implications for Future Research

While our results offer insights into the nature and change of an inclusive school, they are grounded primarily in the perceptions of adults. Future research into the perceptions of classmates with and without disabilities is needed to fully comprehend the meaning of inclusion. It is apparent to us that the development of relationships and true friendships emerge within the context of an inclusive school. Delving into the intricacies of peer networks presents both challenges and opportunities for researchers in the coming years.

One area for future research arises from the comments of general education teachers questioning the intensity of instruction and engaged time of students with severe disabilities. Whether their statements reflect concern with the rigor of their own teaching practices, or the practical complexities of creating inclusive classrooms, cannot be discerned from the data collected in this study. We believe that both possibilities contributed to their perceptions and that additional research is needed to examine the relationships among context, perceptions, and outcomes using both qualitative and quantitative methods of inquiry.

The next step in the evolution of inclusive educational services for students with severe disabilities requires that we focus on problems of implementation. Future research efforts should be directed at the development of effective strategies that can be implemented and sustained across the complex ecologies represented by local educational programs. In order for such efforts to be maximally successful, it seems only logical that the primary consumers of our work, administrators, general and special education practitioners, and students, be included in the action research process. Our ability to understand the issues of policy implementation will be enhanced to the extent we become a more inclusive research community.

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Table 1

Nature and Frequency of Data Collected[1]

Type of Data	Collected By	Duration/Frequency
Participant Observations		
Classrooms	Coordinator/RA	2 hrs/wk
Classrooms/Meetings	Project Director	2 hrs/wk
	Coordinator	2 hrs/wk
Interviews	Coordinator	60 min/twice each year
Anecdotes (transmitted)	Administration, faculty, parents, students	as occurred/ approx. 350
Products (newsletters, minutes of meetings)	Coordinator, Project Director	as available/ approx. 175

[1] As amassed over 30 month period of data collection

Table 2

Demographic Information on School and Students

	Students	
Variable/Grade	Not Classified	Classified[1]
Kindergarten	45	4
First Grade	105	7
Second Grade	126	9
Third Grade	142	10
Fourth Grade	193	9
Ethnicity		
Black	1	1
Asian	8	0
Hispanic	4	0
White	598	38
Low income[2]	67	NA
Level of functioning[3]		
Mild/moderate		17
Severe/profound		9

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[1] Includes 12 students with hearing impairments; figures based upon 1991-92 school year data.

[2] Indicates families qualifying for Chapter 1 subsidized lunch program; kindergarten students excluded from this count.

[3] Does not include students with hearing impairments; mean Vineland scores for students with severe disabilities = 16 months, range= 0-7 to 4-1; mean CA= 7.5 years;

MANUSCRIPTS SUBMITTED FOR PUBLICATION REVIEW

Hollowood, T.M., Salisbury, C., Rainforth, B., & Palombaro, M.M. Uses of instructional time in classrooms serving students with and without disabilities.

Use of Instructional Time in Classrooms Serving Students With and Without Severe Disabilities[1]

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Abstract

Quality instructional time is often judged in terms of how well teachers use their time and the level of engagement students have with material presented during instruction. This investigation explored the uses of teacher and student time in an inclusive elementary school where students with mild to profound disabilities were enrolled in general education classrooms. Participants included six students with severe disabilities, six randomly selected classmates without disabilities, and six students from classes in which no student with a severe disability was enrolled. Teacher plan books were reviewed to determine time allocated for instruction. Direct observation of instructional sessions was used to determine time used for instruction, as well as levels and types of student engagement. In addition, data were collected on interruptions to planned instruction. Results revealed that students in each group evidenced comparable levels of engaged time, that teachers displayed high levels of allocated and used time, and that students with severe disabilities had no affect on either losses of instructional time in classrooms or the level of engaged time displayed by peers without disabilities. Results were discussed in light of this school's contextual characteristics and the inclusive schools movement.

How children spend their time in classrooms has been a longstanding concern of educators. Research in general education reveals that time-related instructional variables (e.g., time allocated for instruction and learner engagement) are predictive of academic achievement (Good & Brophy, 1986; Greenwood, 1991; Latham, 1985; Tindal & Parker, 1987). This literature indicates that schools generally allocate less than half of the typical school hour to instruction, that most students are engaged approximately 70-80% of that time, and that the typical ratio of engaged to allocated learning time is 33%. By placing the time the learner is actually engaged in the intended activity (engaged time) into the contexts of time allocated for instruction (allocated time) and the time actually used for instruction by the teacher (used time), it is possible to more accurately understand engagement ratios and the actual proportion of the school day devoted to core instructional activity.

Relatively little attention has been devoted to what actually transpires during the school day in integrated instructional contexts. For educators working in integrated contexts, it is important that all children benefit from instruction and that the presence of students with disabilities not diminish the quality or opportunity for instruction for students without disabilities. Preliminary reports on the use of instructional time in integrated contexts have focused almost exclusively on students with mild and moderate disabilities at the elementary and middle school age (Friedman, Cancelli, & Yoshida, 1988; Rich & Ross, 1989; Thurlow, Ysseldyke, Graden, & Algozzine, 1984; Tindal

& Parker, 1987; Ysseldyke, Christenson, Thurlow, & Skiba, 1987a; Ysseldyke, Thurlow, Christenson, & Weiss, 1987b; Walter, 1983). In general, the time allocated for instruction and learner engagement ratios from these studies are comparable to those found in the general education literature. Discrepancies in findings across studies in both fields have been attributed to differences in definitions of terms (Egbert & Kluender, 1984; Ysseldyke, et al., 1987b).

Ysseldyke et al. (1987a) obtained notably different results in a study involving 122 students from 10 schools. Of these students, 92 were identified as having a mild to moderate disabilities, and 30 had no identified disabilities. The average engagement ratio was 57%, with little difference noted between student groups. This is a particularly noteworthy investigation because engaged time was examined within the context of allocated time, and the sample included a comparison with students who evidenced no learning problems.

However, data on time use in general education classrooms serving students with severe disabilities are notably absent from the research literature. By examining components of instructional time we can begin to understand the characteristics of instruction in inclusive educational contexts, and consequently, how we might begin to optimize instructional practices so that all students will benefit from such settings (Graden, Thurlow, & Ysseldyke, 1983). Implementation data are needed to move discussions of support for the inclusives schools movement beyond the philosophical arguments have dominated discussions to date.

The current study was undertaken to examine uses of time in elementary school classrooms which included students with mild to profound disabilities. We were particularly interested in comparing engagement ratios of students enrolled in classrooms with and without peers with severe handicaps. We hypothesized that time allocated for instructional activities would be greatest for students with severe disabilities (Ysseldyke, et al., 1987a; Ysseldyke, et al., 1987b). Further, we projected that the amount of time actually used for instruction would be consistent across classrooms, but that losses of time would be qualitatively different since students in classrooms where there were children with severe disabilities often spend non--instructional time assisting in meeting the needs of their peers with disabilities (Rich & Ross, 1989; Walter, 1983). Finally, we hypothesized that engagement ratios would be quantitatively similar across all student groups, but that qualitative differences would exist in the way those engaged behaviors were exhibited. Children with more severe disabilities were expected to spend more time passively attending to instruction, while other students were expected to spend more time actively responding and interacting during instruction (Tindal & Parker, 1987; Walter, 1983).

Method

Students and Setting

Eighteen elementary school students enrolled in 8 classrooms participated in this study. Group 1 consisted of six students with severe disabilities (2 each in the first, third, and fourth grades), who were selected as an intact sample of all such students enrolled in this elementary school on a full-time basis whose attendance was comparable to that of their nonhandicapped peers. The mean chronological age of students in Group 1 was 8 years 2 months, with a mean age equivalent on the Vineland Scale of Social Maturity (Revised) of 13 months. All students lacked verbal communication skills, tested in the severe or profound range of mental retardation, and evidenced limited social interaction skills. In addition, two of these students were severely physically handicapped, and three exhibited serious challenging behaviors (e.g., hair pulling, biting, aggression). Each of these students was enrolled in a grade appropriate to his/her chronological age and was supported by a consultant special education teacher, paraprofessional staff, and therapy services.

Each student with a severe disability was matched with a randomly selected classmate without identified disabilities. These latter classmates comprised Group 2. Group 3 consisted of six students, randomly selected from first, third, and fourth grades in which no child with a severe disability was enrolled. Random selections of students for Groups 2 and 3 were made by drawing names from a box containing all possible names of students without disabilities in the respective classrooms. All students in Groups 2 and 3 were reported as performing within expected ranges on standardized achievement tests administered by the district. No other demographic data were available on these students.

All students were enrolled in an inclusive elementary school in south central New York. In many respects the district is typical in its size and composition to other suburban-rural communities in the region. Students are served in 2 elementary schools, one middle school, and one high school. The village of 17,000 is predominantly blue-collar, middle class, and Caucasian (96%).

However, the district is also unique. Nationally recognized for its validated Outcomes Driven Developmental Model (JDRP, 1985; NDN, 1986), the district incorporates many practices endorsed in the effective schools literature within an organizational framework of outcomes based education (Blum, 1985; Purkey & Smith, 1983). This school is also distinguished for their progressive work in inclusive education (Salisbury, 1991; Salisbury, Evans, & Palombaro, 1992; Salisbury, Palombaro, & Hollowood, in press). There were, then, a number of organizational, ideological, and pedagogical characteristics of this school that grounded the context in which this investigation occurred.

Design

A causal-comparative, between groups design was used. Group membership (independent variable) was determined by the presence or absence of a severe disability or whether a classmate evidenced a severe disability. Students in Group 3 constituted a post-hoc control group.

The major dependent variables were allocated time, used time, and engaged time (defined below).

Procedure

The general procedures for this study involved an analysis of general and special education teacher instructional plans (allocated time) and the direct observation of classroom instructional sessions (used and engaged time) over a five month period. Operational definitions of dependent variables were developed as the basis for data collection and are described below. Observational data were collected during used time only, yielding information on used time, time lost, and engaged time.

Observational data were collected for each student using a 10-second time sampling procedure during large group and individual instructional sessions. Two trained masters level research associates observed each class for four, 30 minute blocks, two in the morning and two in the afternoon, each month; yielding 10 hours of data per class over the 5 month study. Classes were observed only during those blocks designated by the teacher as instructional time for all students. In classes where there was a student with a severe disability, both student and matched peer were present for data collection. When collecting data on multiple students in the same class, the observer alternated between students after every ten second interval.

Dependent measures and procedures

Allocated time. Allocated time was defined as the time which the general or special education teacher planned to use for instructional activities. For Groups 2 and 3, instructional activities included any in-class activities designed to meet academic and curricular goals. For Group 1 they included those activities designed to promote the attainment of any cognitive, social/ affective, or psychomotor objective consistent with the appropriate curriculum guide or the Individualized Education Plan (Rich & Ross, 1989).

Data on allocated time were collected for one week each month by reviewing teacher plan books and individual schedules for students with disabilities. Because the master schedule created structural parameters within which teachers had to plan, this sampling was assumed to provide a reasonably valid indication of total allocated time for the month. All time allocated for instructional activities during the week sampled was added and recorded individually for students in Groups 1, 2, and 3.

Used and Lost Time. Used time was defined as the amount of allocated time actually spent on instructional activities. Lost time was considered time allocated to instructional activities that was not used towards the completion of those activities. Lost time was recorded any time the teacher interrupted the instructional activity and/or the majority of the class disengaged from attending to the instructional activity.

Data collected on lost time reflected the duration, cause, and nature of the interruption/delay. If the nature of the interruption changed before instruction began, the observer recorded the time of change, as well as the source and nature of each new interruption.

Engaged Time. Tindal and Parker's (1987) definitions of student engagement were used as the basis for our data collection effort on this dependent variable:

> Off Task: Class time allocated by the teacher for instruction or student performance, but the student is not engaged.
> On Task:
> a. Passive Responding: Student is passively attending to an instructional presentation or learning task; no student activity is observed.
> b. Active Responding: Student is actively responding in a relevant manner to instructional presentation or learning task.

Reliability

Inter-rater reliability was established for observational measures prior to the onset of data collection through observation of non-target classrooms and videotaped instructional lessons. Criterion for reliability was set and achieved at 85%. Interrater reliability was calculated by dividing the total number of agreements by the sum of agreements plus disagreements, then multiplying by 100. Additional reliability checks were also made during the first, third, and fifth months of data collection on 2 hours of allocated time data and 30 minutes of engaged time. Results indicated high levels of reliability for used (100%, 93%, 91%) and engaged time (93%, 89%, 91%) for each group following onset of data collection.

Results

Allocated Time

The school day for all students was six hours. During the five weeks plan books were analyzed, a total of 150 hours was available to each student for instruction. The time allocated for instruction obtained from plan books was converted to a percentage of the total time available. This figure revealed that the average percentage of time allocated for instruction was comparable across the students in Groups 2 (75%) and 3 (76%). However, as expected, students with severe disabilities (Group 1) had more of their daily schedule (84%) allocated to instructional tasks than their peers in the other two groups.

Allocated time for academic instruction occurs within the context of the school's master schedule. Insofar as 80 minutes each day is allocated to specials (art, music, gym, computer, or library) and lunch, 78% of each teacher's day is, in fact, available for core academic instruction. This figure is consistent with findings from previous research studies and serves as an important benchmark in gauging the expenditure of used and engaged time in this school (see Figure 1).

Used and Engaged Time

Used time was converted to be a percentage of the time allocated for instruction. Engaged time was converted to be a percentage of the used time. Table 1 depicts the percent of used and engaged time for each participating student.

Insert Table 1 About Here

Time spent on academic instruction is best understood in the context of the entire school day after all losses of instructional time have been factored out. When this figure was computed, students in the three groups spent a comparable percentage of time engaged in instruction (Group 1 - 57%; Group 2- 60%; Group 3- 58%). Figure 1 represents allocated, used, and engaged times for all students in each group as a percentage of the entire school day.

Insert Figure 1 About Here

Concerns are often expressed about the intensity and quality of time spent by students with severe disabilities in general education classrooms. These concerns generally center around levels of active engagement and the relative amount of "down" (i.e., passive) time students experience. We were, therefore, interested in determining how these students compared to their nonhandicapped peers in levels of active vs. passive engagement. As can be seen in Figure 1, students in Group 1 spent 36% of their entire school day actively engaged in instructional tasks, compared to 42% for Group 2 and 45% for Group 3..

Total engagement (active and passive) across Groups 1 (70%), 2 (82%), and 3 (82%) reflects a relatively high percentage of the total time actually available for core academic instruction in this school. The lower level of engagement by students with severe disabilities in Group 1 was affected by two students with total engagement ratios below 75%. Figure 1 depicts the relationship of engaged time relative to the maximum time available for core instruction.

Lost Time

A content analysis (Patton, 1990) of the reasons recorded for disruptions to instructional time revealed that six factors accounted for the time lost in the elementary classrooms in this school. This procedure involved the independent coding and sorting of reason statements by the investigators into categories. Agreement on assignment to categories was affirmed through comparison, and discrepancies were resolved through consensus.

The average amount of lost time attributed to each reason category was computed to be less than one percent of the allocated time for each classroom. This relatively low level of interruption is indicative of the generally high levels of used and engaged time observed across the three groups. Table 2 depicts the 6 categories and indicators for each.

Insert Table 2 About Here

Discussion

Four important findings emerged from this investigation. First, results of this study indicated that time allocated to instruction was not only equitable for the normally developing students in Groups 2 and 3, but also fell within the upper range of that reported in previous studies. These high allocation levels created an important foundation of instructional opportunity for the entire school day, and enhanced the probability that time used for core instruction would be high.

Second, the quantity of time actually used for instruction was unaffected by the presence of students with severe disabilities. General and special education teachers and support staff had shared responsibility for planning and teaching all students in these classrooms. Roles and responsibilities were shared, but clear; enabling staff to provide focused instructional attention to the students they had responsibility for that day. Consequently, time was used well and students were clear about expectations for their participation in the learning process.

Related to this second finding, students with severe handicaps evidenced the highest levels of used time relative to typical peers in the other two groups. This finding may be attributable to several factors. First, students with severe disabilities in these classrooms were required to be "on-task" and in instructional situations for a greater amount of allocated instructional time. Individual student schedules from Group 1 did not reflect as many planned breaks as those of the students in Groups 2 and 3. In addition, tasks presented to the students in Group 1 often required the supervision or assistance of another individual, typically an aide. This assistance created a "forced focus" situation that contributed to relatively high levels of engaged time. Finally, learning opportunities for students with severe disabilities were, of necessity, embedded within naturally occurring routines within and outside of the classroom context creating a greater range of instructional options. These various factors contributed not only to an elevated level of used time for students in Group 1, but added an element of intensity and consistency to their instructional plan.

Third, data from this study indicate that the presence of students with severe disabilities in general education classrooms did not significantly affect the level of engaged time of classmates without disabilities. Students in Group 2 displayed levels of engagement comparable to students in classrooms where no classmates with severe handicaps were enrolled. Clearly, the nature of instruction as described above, and emphasis on instructional accommodation prevalent throughout this school (Salisbury et al., in press), contributed to this finding. Insofar as there was no detriment to nondisabled peers, this study provides support for those who argue that integrated and inclusive classrooms are productive instructional contexts for students with and without disabilities. More importantly, this finding counters criticisms that the inclusion of students with severe disabilities in general education classrooms will negatively affect the quality of the instructional climate for students without disabilities.

Levels of engagement and instructional efficiency were likely affected by the instructional methods employed by these teachers. Staff in this school intentionally promoted self-direction and responsibility for student actions. Specifically, in each classroom, student and teacher roles were clearly defined, posters reflecting "my job, your job" were prominent, and students were often prompted back on task by the teacher asking, "What is your job right now?". Each of these factors contributed to the uninterrupted use of allocated time and resulted in high levels of time dedicated to core instructional activities. The extent to which other schools employ these strategies and are structured with similar pedagogical intentionality may well affect their ability to replicate our findings.

Fourth, losses of instructional time were unrelated to the presence of students with severe disabilities. One often expressed concern among those moving toward more integrated and inclusive schooling is that students with more severe disabilities will require excessive attention from classroom personnel, drawing attention and support away from students without disabilities. In our sample of 8 classrooms, disruptions to instructional time were minimal despite the presence of students with severe disabilities. Most interruptions were attributable to administrative interferences, transitions between activities, and typical students. Even in situations where a student with a severe disability was vocalizing loudly or performing some action that might be expected to draw other students' attention to them, classmates typically continued to attend to the instructional activity presented to them. The values system that heavily infuses this site plays a significant role in the accepting attitudes of adults and peers without disabilities (Salisbury, et al., in press). By understanding and accepting intellectual and behavioral differences, and also understanding what "their job" was at any given time, students were seldom disrupted by events that children in other schools might find distracting (e.g. a child yelling, a communication device "talking" at a side table).

While the small sample size and underlying characteristics of this particular school limit the generalization of findings to other settings, results of our investigation may be useful to others moving toward a more inclusive educational community. Results reveal that a school setting can be structured to create equitable levels of student engagement among students with a broad range of abilities, and that instructional quality can be preserved.

It will be important for future research to focus on the relationship of learner outcomes to levels of used and engaged time in integrated and inclusive contexts. Such data will be helpful in determining how intensive the instructional context needs to be to create effective and efficient learning among students with and without disabilities. Additional research is also needed to determine how time devoted to instruction within different types of instructional paradigms (e.g., peer tutoring, cooperative learning) affects learner outcomes. Relatively little research has been conducted on the relationships among curriculum content, instructional methods, and learner outcomes in inclusive educational settings. If schools are, in fact, places for all students, then professionals will need to recognize, accept, and value the need for different types of learner outcomes. The goals for students with more severe disabilities may well be focused on a more functional level than traditional educational settings have experienced. Consequently, what occurs in classrooms for these students will likely be different, but of no less value, than that which occurs for students who are less disabled or who have no disabilities. How to optimize learning opportunities for all students in integrated and inclusive classrooms remains an area in need of research. Collaborative efforts between practitioners and researchers will be needed to fully understand the issues and options surrounding the implementation of public policy and the development of high quality, inclusive educational communities.

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Table 1

Percent of Used and Engaged Time for Students and Groups

	S 1		S 2		S 3		S 4		S 5		S 6		MEAN		SD	
	U[1]	E[2]	U	E	U	E	U	E	U	E	U	E	U	E	U	E
G1	96	80	96	75	96	75	97	46	96	61	97	80	96	70	<1	12
G2	96	80	96	85	96	80	97	81	96	81	97	82	96	82	<1	2
G3	96	80	96	85	95	79	95	75	96	78	96	83	96	80	<1	4

[1] Used time

[2] Engaged time

Table 2

Sources of Time Lost to Interruptions

Nature of Interruption	Examples/Description
Student interruptions	requests to leave room, change seat; interrupting teacher; personal conflict with another student
Teacher interruptions	stopping instruction to discuss a non-instructional topic; collecting materials; calling the office
Visitor to class	others lending or borrowing materials; teachers stopping in to confirm plans; parents; external visitors
Loud speaker	PA announcements to the class or building
Transitions	time spent changing from one activity to another
Other	random, very infrequent occurrences such as fire drills, police sirens, equipment problems

Figure Caption

Figure 1. Allocated, Used, and Engaged Times of Students in each Group

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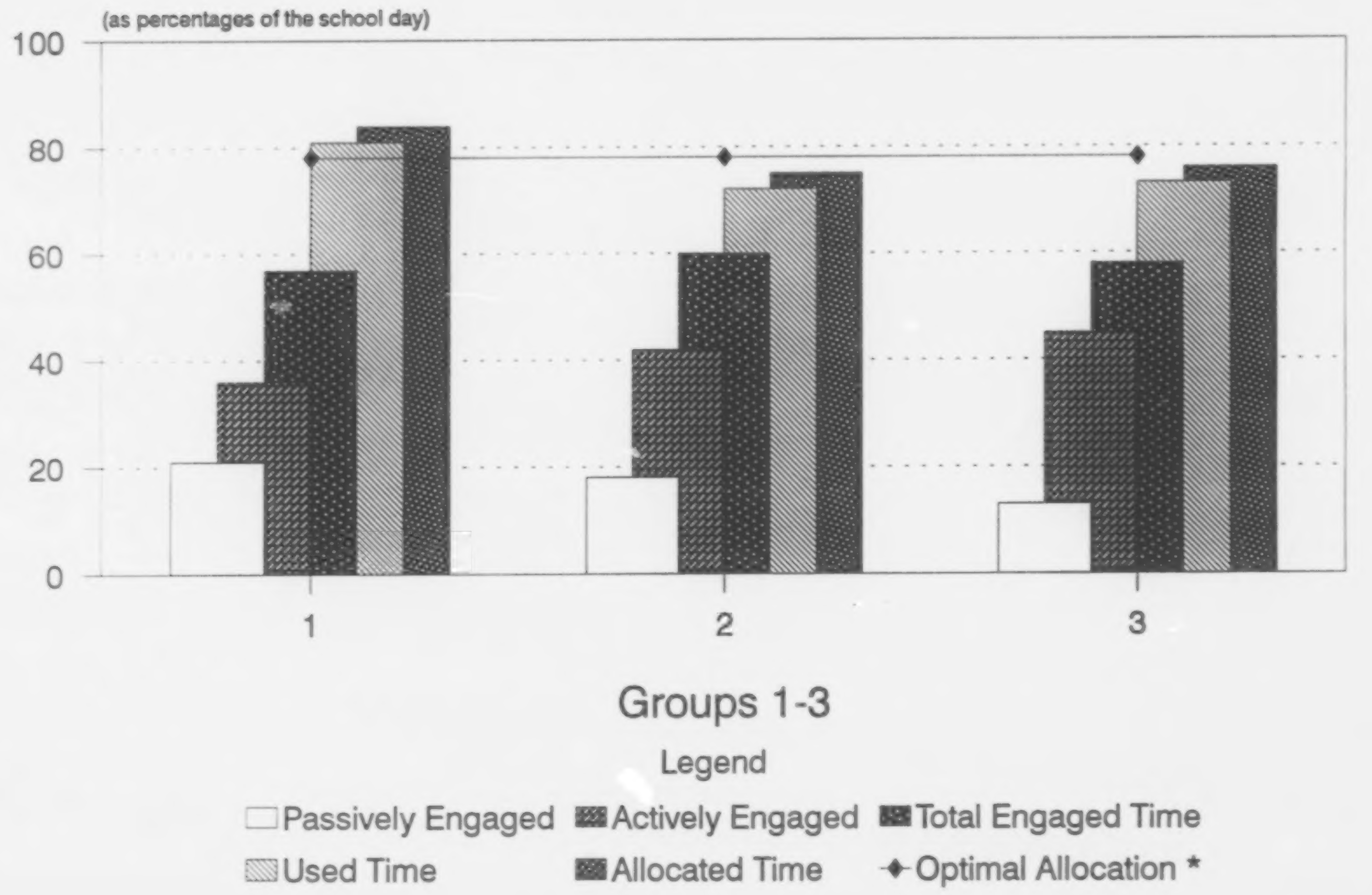
Figure 1
Allocated, Used and Engaged Times



* deducting time for specials/lunch

MANUSCRIPTS UNDER REVISION OR IN PREPARATION

Salisbury, C.L., Palombaro, M.M., Evans, I.M., & Hollowood, T.M. Parent attitudes toward mainstreaming in an inclusive elementary school.

Salisbury, C.L., Peck, C., Palombaro, M.M., & Galucci, C. General educators' strategies for promoting positive social relationships in inclusive elementary schools.

Salisbury, C., Mangino, M., Syryca, S., Petrigala, M., Rainforth, B., & Palombaro, M.M. Instructional inclusion of students with mild to profound disabilities in primary classrooms.

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Chambers, A., & Salisbury, C. Administrative costs associated with the full inclusion of classified students across the grades.

CONFERENCE PRESENTATIONS RESULTING FROM THE COLLABORATIVE EDUCATION PROJECT

Collaborative Problem Solving: Peers and adults as advocates for inclusion. C. Salisbury & M. Palombaro. International Division for Early Childhood Conference on Children with Special Needs. Washington, D.C., December, 1992.

Mainstreaming young children with disabilities in the primary grades: Strategies that work! C Salisbury & S. Syryca. National Association for the Education of Young Children national conference. New Orleans, LA., November, 1992.

Outcome data on an inclusive elementary school: Johnson City in perspective. C. Salisbury, I. Evans, & M. Palombaro. National conference of the Association for Persons with Severe Handicaps. San Francisco, CA, November, 1992.

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Collaborative teaming in an inclusive school: Strategies that work. M. Mangino, S. Syryca, & C. Salisbury. National conference of the Association for Persons with Severe Handicaps, Washington, D.C., December, 1991.

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Classroom ecology in an inclusive elementary school: Focus on instructional and social interactions. C. Salisbury, I. Evans, M. Palombaro, & G. Veech. National conference of the Association for Persons with Severe Handicaps, Chicago, Ill., December, 1990.

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Moving towards more inclusive service delivery systems. C. Salisbury. Summer leadership institute. George Washington University. Washington, D.C., July, 1992.

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Administrative strategies for developing inclusive schools. C. Salisbury, A. Chambers, & J. Kolbenschlag. Leadership conference for superintendents. Lincoln Way Special Education and Resource Center, Louisville, OH., June, 1992.

Building a vision for inclusion. C. Salisbury. Statewide Early Childhood Intervention Conference. Texas Education Agency. Houston, TX. June, 1992.

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Preschools: Planning and teaching for inclusion. Virginia Statewide Systems Change Conference. Richmond, VA., March, 1992.

Why are we changing? Empirical evidence in support of mainstreaming. Maryland State Education Department Inclusion Conference. Laurel, MD. May, 1991.

TECHNICAL ASSISTANCE PROVIDED TO OTHER PROGRAMS GROWING FROM OUR WORK ON THE COLLABORATIVE EDUCATION PROJECT

Talbot County Public Schools- Easton, MD. 1991-1993.
(4 visits)

Salisbury, C. 1991
Salisbury, C., Veech, G., & Syryca, S. 1991
Salisbury, C., Mangino, M., & Gorelski, A. 1992
Salisbury, C., Veech, G., & Kolbenschlag, J. 1993

Texas Education Agency, Region IV - Houston, TX. 1989-1993.
(5 visits)

Salisbury, C. 1989
Salisbury, C. 1990
Salisbury, C., & Palombaro, M. 1991
Salisbury, C. 1992
Salisbury, C. 1993

Caddo Parish School Board - Early Childhood Center. Shreveport, LA.

Salisbury, C., & Palombaro, M. 1991

Implications of Findings for the Practitioners, Researchers, Students, and their Families

This project has made substantive contributions to the knowledge base about the process and outcomes of inclusion. In particular, our qualitative analyses of the factors that contribute to the development of an inclusive context will provide important information to administrators and classroom personnel. In addition, our findings on the centrality of collaboration to the development of an inclusive school program will provide further support for those involved in educational reform and restructuring efforts.

We included staff from Harry L. Johnson Elementary School directly in identifying ways to promote inclusion (through teacher initiated change awards) and in our dissemination activities as co-presenters. We believe that the quality of our outcomes and the credibility of our work were enhanced by this collaborative partnership with those most directly involved in the "work" of inclusion. Further, we believe that these collaborative efforts helped enhance (1) our understanding of the issues surrounding inclusion, (2) the adoption of our "best practices" inservice training and the Collaborative Problem Solving strategy in the school, and (3) the professional development of these participating staff members.

We also included parents in our CPS training and supported their efforts to resolve issues of exclusion through the parent initiated change awards. Further, their input through our Parent Attitude Survey enlightened for us some of the issues around mainstreaming and inclusion and helped us interpret our findings with greater clarity. We believe that students with and without severe disabilities were the beneficiaries of the work of these parents, and the teachers with whom they teamed, in developing the Circle of Friends Recreation Club.

New research knowledge emerged from our longitudinal investigations of contextual, child, and pedagogical factors. We believe that the empirical contributions from this project, particularly those around collaborative problem solving, social interactions, instructional time use, and the change process are significant and will have important practical benefits for moving the field ahead. As with any sound research project, this one raises as many issues as it addresses. We believe there is considerably more work to be done on issues of implementation and that it is critical that additional research delve into the practical constraints of not only creating, but sustaining, educational reform.

The most important benefactors of our project were the students with and without severe disabilities. The quality of their instructional environment not only was preserved, but flourished, through our work in this school. We believe, and the staff have corroborated this point, that the collaborative problem solving process has generic application and provides an important vehicle for synthesizing values, communication process skills, critical thinking, and social responsibility in the school and classroom context. Our data clearly indicate that the presence of students with severe disabilities need not detract from the quality of the instructional environment and that, in fact, their role as equal and valued class members produces positive learner outcomes.

X. SOURCES OF ADDITIONAL INFORMATION

Information on additional data analyses, articles currently in preparation, or other aspects of this project may be obtained by contacting:

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XI. ASSURANCES STATEMENT

A copy of this report has been filed with the following organizations and/or individuals:

(1) Office of Sponsored Funds Administration, SUNY Binghamton. Paul Parker, Director.
(2) ERIC Clearinghouse
(3) U.S. Department of Education, OSEP, SHB. Dr. Anne Smith, Project Officer.

A copy of the title page and abstract have been sent to the following organizations:

(1) HEATH Resources Center
(2) National Clearinghouse for Professions in Special Education
(3) National Information Center for Children and Youth with Disabilities
(4) Technical Assistance for Parent Programs Project
(5) National Diffusion Network
(6) ERIC Clearinghouse on the Handicapped and Gifted
(7) Child and Adolescent Service System Program

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